

THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE

VOL. 80.

NEW YORK, SATURDAY, APRIL 26, 1902.

No. 17.

ORIGINAL ARTICLES.

PROSTATECTOMY.¹

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THE past decade has seen a wonderful advance in our knowledge of diseases of the bladder, and this advance has been largely due to the increased employment of suprapubic cystotomy for stone, devised by Franco in 1556. During the past twenty years the suprapubic incision served the same purpose as exploratory laparotomy. Direct examination, both visual and digital, has resulted in devising new procedures as well as the development of old methods of operative interference. Considered from a scientific standpoint, the surgery of the prostate is of comparatively recent date.

Statistics made during the past, what might be called the forming stage of prostatic surgery, should be considered only in a general way. During such a period of incomplete knowledge and imperfect diagnosis surgeons lacked judgment as to the best operation for the condition present. The result was that operations were deferred until the patients were nearly moribund; they were hasty and incomplete because made upon the worst cases when the symptoms demanded immediate relief, the condition itself being one occurring upon the declining side of life, when sclerotic arteries and degenerative changes, especially of the kidneys, are common. If one place dependence upon statistics, palliative operations were more fatal by far than the more recent operations for radical cure. Present statistics to a large extent indicate the judgment and skill of the operator in diagnosing conditions and choosing methods of attack suitable to the case. The surgeon who adjusts the operation to the patient, and not the patient to the operation, is the most successful.

Most of the literature upon the subject of prostatic surgery has been written by operators who advanced some special method of operation or plan of attack, regardless of the indications. It is unnecessary to dwell upon the diagnosis of these cases. Every male over fifty years of age who complains of frequent micturition of small amounts, sudden stoppages of flow, the symptoms extending over some period of time, or who reports that total retention has occurred, requiring catheterization or aspiration, leads the surgeon to think at once of prostatic hypertrophy or of stone. The diagnosis is completed by rectal examination, sounding of the bladder, and the examination of urine passed, which latter determines the ques-

tion of cystitis and its character. By passing a catheter while one finger is inserted in the rectum the depth of the prostatic urethra can be estimated by the distance traversed in the prostatic portion before the urine flows. The quantity of residual urine is now ascertained, the condition of the bladder muscle is determined, also the size of the bladder by irrigation. The cystoscope will be of practical use in a small number of cases. If the condition be a surgical one, the next important step is the general examination of the patient with regard to the condition of the heart, arteries and nutrition, general appearance and age. An important factor is to find the relative proportion of urine passed during the night as compared with that passed during the day. The danger of uremia in those who have high-tension arteries, quick-closing heart valves, contracted kidneys which secrete during two-thirds of the twenty-four hours, low specific gravity urine at night, is greatly to be feared. After such an examination we can establish a fairly accurate ratio between the disability, on the one hand, and the dangers to be incurred and benefits to accrue from operation, on the other.

The use of a catheter once or twice a day may be recommended in certain cases, with such restrictions as to its care as can be impressed upon the patients. Few individuals lead a comfortable catheter-life, and those who obtain relief for long periods in this manner only impress upon our minds that the average catheter-life is from four to six years. In many cases it will not be necessary to give any treatment further than general or hygienic.

Meyer has classified the various methods of operating for prostatic hypertrophy into direct and secondary.

Of direct methods we have suprapubic, subpubic, urethral, perineal and sacral routes; Mercier's method of prostatotomy, injections into the gland, stretching and massage. Electrically we have the galvanic current and the cautery.

The more indirect methods are castration, vasectomy and Bier's operation of ligating the internal iliac arteries. Of the various methods of suprapubic operation we have:

(1) Suprapubic prostatectomy without perineal drainage (McGill). (2) Suprapubic prostatectomy with perineal drainage (Fuller). (3) Suprapubic prostatectomy with perineal section and drainage (Nichol). (4) Suprapubic cystotomy with perineal prostatectomy without perineal drainage (Nichol). (5) Suprapubic cystotomy with perineal prostatectomy and perineal drainage (Alexander).

A careful review of the general literature of the subject would indicate that about one-half of enlarged prostates can be reached either from

¹From advance sheets furnished by courtesy of the Editor of the St. Paul Medical Journal.

above or below equally well, according to the skill and inclination of the operator, that about one-fourth can be reached better from above and one-fourth better from below, and from anatomical or pathological conditions the combined operation will be necessary in certain cases.

There is not much material difference of opinion among the numerous writers upon the operative and autopsy findings of enlarged prostates. Watson states that the most common enlargement is bilateral and median in about one-half the cases, median only in one-third, bilateral only in twelve per cent., unilateral with median or separate pedunculated growths being rare. This about conforms with the statements of Sir Henry Thompson and Dittel, while McGill lays some stress upon the uniform circular hypertrophy. S. Alexander, from a larger number of autopsies, presents the most practical points from an operative standpoint:

"The layer of prostate behind the urethra does not enlarge. The enlargement occurs in the lateral and developing middle lobes. The lateral growths depress the urethra, the middle raises its inner posterior end, thus increasing the length and curve of the prostatic urethra. The lateral lobes are nearly always encapsulated and glandular. The middle enlargement may be of three varieties:

"First, muscular; those cases with a bar. Second, glandular and then encapsulated. Third, hypertrophy of mucous glands and bladder tissue."

Our choice of operation will be influenced by known and unknown conditions. Could we accurately diagnose the cases of muscular bar, the prostatotomy of Mercier or the Bottini cautery operation could be considered, but to cut through the capsule of a glandular enlargement and not remove it is surgical insult. Of known conditions which influence our choice, the stout individual with thick perineum, long prostatic urethra and high lying prostate is one in whom a suprapubic or a combined operation will be indicated. Those with large dilated bladders may be reached by suprapubic incision, while the stiff-walled contracted bladder is possibly more suited to perineal attack. Those in whom stone is present and the condition of the bladder is unknown, but presumably with enlarged prostate, are best explored from above. Those who have had a previous suprapubic cystotomy for stone or drainage are best operated upon from above. By unknown conditions we are influenced as well; for instance, in cases of symptomatic stone, with none found by search, but with known enlarged prostate, suprapubic incision gives better bladder exploration.

In the emergency operations made in the country, when retention is present and immediate relief demanded but neither time nor facilities for careful examination, the suprapubic opening is indicated. Those with cystitis and old or acute secondary changes in the testes, and such cases are not rare, will often improve greatly after castration.

We still have a large class of prostatic sufferers in whom there are no symptoms of stone, little or no cystitis and short perineal distance, and for whom a perineal operation is unquestionably the better method.

The ease of operation, perfect drainage and early recovery in chosen cases no doubt justify this choice; the special retractors of Ferguson and Syms much simplify the accessibility of the gland from below, and it is quite possible from present indications that this method will be developed into the operation of the future by making earlier diagnosis of conditions and operating before these cases reach the stage of necessary suprapubic incision. The perineal operation may then bear about the same relation to the suprapubic that the radical operation for hernia does to the radical operation employed in cases of strangulation.

Suprapubic Operation.—After the usual preparation for operation one-sixth of a grain of morphine is hypodermically administered one-half hour previous to operation; this generally reduces the amount of anesthetic required. Ether is to be preferred but chloroform is more often indicated. The patient is placed in Trendelenburg's posture. A catheter is inserted, the bladder irrigated and inflated with air, and a rubber band applied to the penis to retain the air pressure. This method of Bristow's has displaced fluid tension and the Peterson rectal bag, and ordinarily gives from one and one-half to three inches of space between the peritoneal fold and the pubic bone.

A vertical or transverse incision is made down to the recti muscles with blunt separation of recti and digital separation of areolar tissue above the bladder, which is easily felt; the wound is retracted and two sutures are applied to the bladder-wall, which act as tractors, the bladder is incised and digital exploration made. If it be considered best to complete the prostatectomy from below, the superior opening is used to force the gland down upon the enucleating finger in the perineum. Should the operation be made from above, the tendons of the recti muscles are cut laterally one-half or three-fourths of an inch each side of the incision. The bladder incision is enlarged and one blade of the scissors is passed into the urethra, the other over a projecting lobe and the capsule incised, the enucleation being made with the finger. Single pedunculated tumors are removed with scissors, cold snare, or by morcellation. This latter method is not employed if it can be avoided, as it leaves tags of tissue which must undergo necrosis. An assistant can make strong perineal pressure and upward pressure with two fingers in the rectum against the prostate, or the operator can temporarily employ a rubber glove on one hand for this purpose.

Muscular bars are treated in sight, by cautery or prostatotomy. Hemorrhage, the bugbear of surgeons in this work, may necessitate a gauze pack, which must be so placed as to be brought out above, or by perineal incision, or in form of

a circular pack fastened to a thread passed through the urethra and drawn out through the penis, when removed as done by Keyes. The Witzel method of closing the bladder by folding its wall over the tube for drainage is very successful in preventing leakage in suprapubic drainage. When, owing to certain conditions, this cannot be done, the automatic siphon suction apparatus of Dawbarn is very useful. Some operators fasten the bladder to the abdominal incision. This favors a lack of drainage in the space of Retzius, and after recovery these patients complain of pain during urination, the concentric muscle fibers then working from two fixed points, viz., the base and the point of attachment above.

The suprapubic operation requires from three to five weeks' hospital care, although in the aged it is best to get the patient out of bed as soon as possible.

Perineal Operation.—With regard to the various perineal operations upon the diseased prostate, there are but two methods which are at present advocated. There are the median and the curved transverse or trap-door incision, made with the patient in the lithotomy position. Those who use the median incision dilate the wound as much as possible, and after incision of the capsule and partial separation of the enlarged mass employ morcellation forceps for its removal. A tubular drain and gauze pack complete the operation. The transverse curved incision is one giving much more room, and is altogether more satisfactory. Commencing on one side between the anus and tuber ischii, it passes forward to a median point back of the bulbar prominence, and then to a point upon the opposite side of the anus near the tuber ischii. Such a wound, when deepened to the prostate with the rectum pushed back from its attachment, has the general shape and size of a large vagina. The capsule over the prostate is incised transversely and caught beneath the posterior retractor. The glands are separated by the finger and hook catspaw retractors employed to roll the tumors out of their position. Syme makes use of a water-dilated rubber ball which is passed into the bladder empty through an opening in the membranous urethra and drawn through the perineal wound by its connecting rubber tube. A. Ferguson uses a special staff retractor, passed through the penis and serving as a urethral guide, and also to force the various lobes into the wound. A No. 16 sound has proven very satisfactory for this purpose. A large tubular drain into the bladder and gauze packs of prostatic cavities are brought out of one side of the incision, the balance of which is closed by a suture. The drainage and pack are left for an average of six days.

Constituents of Cigar Smoke.—No work of importance has been done upon this subject since Kissling's observations, made in 1893. J. Habermann (*Ztschft. f. phys. Chemie*, Vol. 33, p. 55) has given a modern presentation of this interesting topic. Carbon monoxide, sulphurous acid, hydrocyanic acid, pikolin bases and nicotin are the important products found and described in detail.

THE DIAGNOSIS AND OPERATIVE TREATMENT OF PROSTATIC HYPERTROPHY, WITH REMARKS ON THE COMPLICATIONS BEFORE AND AFTER OPERATION.¹

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THE principal symptoms indicating the presence of an enlarged prostate are frequency of urination, pain and spasm, and it is for their relief that the surgeon is usually consulted. An examination is then made in order to ascertain the size of the gland, the amount of obstruction it offers to urination, and the condition of the bladder and kidneys. Rectal examination shows us the size of the posterior part of the gland from its apex to its base, and tells us whether this distance is more than one and a quarter inches, the normal length of the gland. But it must be remembered that, as the hypertrophy tends to grow in the line of least resistance, it finds the urethral covering (wall) much easier to displace and thus tends to grow upward and backward, often making the vesical base of the gland higher up than the rectal. The result of such an extension would be to elongate the urethra or to cause a thickening of the gland with consequent deformity just in front of the internal urinary meatus, probably raising its urethral floor and giving rise to obstruction sufficient to prevent the patient from fully emptying his bladder. To ascertain this more accurately it is necessary to pass a catheter and to note the distance to which it must be introduced in order to draw off the urine. The usual distance, measured from the eye of the catheter, is eight inches and any distance beyond this would show an elongated prostatic urethra due to hypertrophy of the gland about it. At the same time the amount of residual urine that is present in the bladder can be noted.

A stone-searcher should then be introduced into the bladder to see whether a calculus be present, and its beak is turned down and caught behind the vesical base of the gland. The length of the urethra can thus be again measured, showing the distance from behind the obstruction to the external urinary meatus; while the searcher is in this position the tip of the finger inserted into the rectum can feel the end of the instrument in the bladder, thus determining whether the vesical base of the gland is further up than the base as felt in the rectum. Sometimes, in thin individuals, the prostate can be palpated bimanually, as one would examine a uterus, and then its exact size can easily be determined.

By means of cystoscopy we can determine something of the contour of the base of the gland, although the procedure is sometimes of little value on account of the cystoscope not being long enough to enter the bladder, and in other cases because the surgeon is not able to outline distinctly the irregular vesical base. In cases in which the gland seems on rectal examination to be very large and in which there is a urethral

¹ Read before the Medical Society of Lynn, Mass., 1901.

impediment at seven inches or more and the urethra is lengthened, we can say that hypertrophy of the lateral lobes exists; but if the gland seems small and similar conditions exist, we must think that the principal seat of the hypertrophy is in the middle lobe.

An examination of the urine will show us if pus is present; if in addition epithelial cells from the bladder be found, we can infer that a cystitis exists, whereas if there be renal epithelium together with casts, it will be seen that nephritis is also present. In order to find out more about these conditions it will be necessary to examine the bladder with the cystoscope and to test the working power of the two kidneys by determining the percentage of urea found in the urine drawn from each ureter.

Indications for Operation.—If the kidneys be in very bad condition medically or surgically, and if they be not improved by treatment, an operation is contraindicated, as uremia may follow, shortening life instead of prolonging it. If there be very little residual urine and if the kidneys be in good condition, it may be well to try at first stretching the prostatic urethra and washing out the bladder, if cystitis be present; but if there be considerable obstruction, as shown by the amount of the residual urine, and if the kidneys be affected in a mild degree, it is better to perform an operation as soon as possible. It must be remembered that prostatic symptoms occur most frequently in the fall of the year, and that they may be relieved by appropriate local and general treatment.

Complications before Operation.—Attacks of epididymitis, hematuria and urethral fever are complications which urge a patient more than anything to resort to operative procedures. Stone in the bladder is a frequent complication of enlarged prostate and should receive attention. If the prostate be large, in a case of stone, it would perhaps be better to do a suprapubic lithotomy and a prostatectomy. If a Bottini prostatectomy be contemplated, it may be better, however, to perform this operation first, and to take advantage of the increased size of the urethra thus secured for the manipulation of litholapaxy. One must not forget that stone in the bladder is a more frequent complication of enlarged prostate than it is thought to be, and that the reason why we do not find it oftener is because we do not like to introduce solid instruments into the bladder, fearing to wound the prostatic urethra. Very often, in old men with slightly enlarged prostates, it is the stone and not the prostate that is the cause of the trouble.

If there be a stricture complicating hypertrophied prostate, the operation can be made to include both conditions at the same time. It is extremely rare, however, to find strictures in men of the prostatic age, and almost all cases of so-called stricture in old men are cases of prostatic impediment in the posterior urethra. There are exceptions to this rule, of course, and not long ago there was sent to me for prostatic operation

a patient in whom no prostate could be felt, but who had an impermeable stricture in the deep urethra. After performing a perineal section I palpated the prostate with one finger in the prostatic urethra and another in the rectum and found that the gland had been almost completely destroyed.

In regard to the condition of the kidney and bladder it may be said that the bladder is the least important, because it makes no difference how badly involved it may be, it will be benefited by the use of internal antiseptics and by irrigations through the catheter. An involved bladder does not count so much against the operation as does kidney involvement. It is surprising to see how often the bladder can empty itself almost entirely after a prostate operation, even if it has been previously considered atonic and years have been passed in catheter life. Diseased kidneys, however, whether medically or surgically involved, are always contraindications to surgical interference upon the prostate, as in such cases a renal congestion followed by uremia and death may take place. If, then, the kidneys be diseased and an operation be demanded, a prostatectomy should be performed as the operation of choice, inasmuch as statistics show that the danger from this operation is very much less than from prostatectomy.

Valvular disease of the heart and fatty heart are indications against operations on the prostate if the heart action be poor. In the first class of cases the operation may be borne if there be sufficient compensatory hypertrophy of the heart muscle; in the second class, it is always exceedingly dangerous.

Choice of Operation.—The indications which would determine a choice between prostatectomy and prostatectomy (Bottini's operation) are the age of the patient, the size of the gland, and the condition of the bladder and kidneys. It may be said in general that cases in which there are slightly diseased kidneys and prostates that do not feel large on rectal examination, although they cause considerable urethral impediment, are cases for prostatectomy. On the other hand, middle-aged men with large prostates, as felt through the rectum, with good kidneys and sound bladders are subjects for prostatectomy.

Age is an important consideration, for the older the patient the more liable he is to die from shock and asthenia; therefore in a very old man, if the prostate be of the right variety, a Bottini operation should be performed. Cases of men over ninety years of age have been reported as successfully operated upon by this method. Old age is, however, not an absolute contraindication to prostatectomy, as men over seventy-five years old, having good kidneys, non-infected urine, but very large prostates, have successfully undergone this operation.

Regarding the size and shape of the prostate as influencing the choice of operation, it may be said that cases in which the prostate feels very large by rectum are suitable for enucleation; while

cases in which the prostate does not feel considerably enlarged on rectal touch, but which offers a distinct impediment to the introduction of instruments into the prostatic urethra, and in which there is consequently a considerable amount of residual urine, are best suited for prostatotomy. In this class of cases are those that present the so-called "prostatic bar," which is so often spoken of in connection with the subject of prostatic hypertrophy.

Preparation of the Patient for Operation.—But little time is required to prepare a patient for a prostatic operation if the kidneys and bladder be in good condition and if there be not much residual urine. If, on the other hand, these organs be markedly involved and if there be a great deal of residual urine, the duration of the preparatory treatment will be longer.

Prostatic patients are often sent to surgeons for operation while suffering from an attack of acute retention of urine. Such a patient should be handled with the greatest possible care and, if

The bladder should be carefully handled in all cases of retention, and a catheter should be introduced as often as indicated by the amount of urine passed and the frequency of the desire to urinate. As a rule, in a case of complete retention the catheter should be passed four or five times a day. When there are twelve ounces of residual urine, the catheter should be passed four times a day; when the residual urine amounts to from eight to ten ounces, three times a day; when there are from six to eight ounces, twice daily, and when the residuum is below six ounces, once a day.

In cases of acute retention, after the bladder has been emptied, the catheter should be used at first once every four hours; then, after the bladder is more tolerant, every five hours; later, every six hours. If cystitis be present, the bladder should be washed out twice a day with boric-acid solution and once every other day with a solution of silver nitrate, one part in four thousand. In addition, some urinary antiseptic should be given,

FACTORS GOVERNING CHOICE OF TREATMENT IN PROSTATICS.

Indications.	Prostatectomy.	Prostatotomy.	Catheter Life.
1. Age.	Under 70 years.	Any age over 50 years.	Any age over 50 years.
2. Kidneys.	Normal.	Fairly healthy.	Considerably diseased.
3. Bladder.	Fairly healthy.	Fairly healthy.	Atonic.
4. Prostate.	Markedly enlarged as felt by rectum.	Moderately enlarged as felt by rectum.	Any size.
5. Urethra.	Decided impediment. Elongation of the canal.	Distinct impediment.	Catheterization possible without difficulty or complications.
6. Residual urine.	Over four ounces.	Over four ounces.	Over four ounces.
7. Special symptoms.	Frequency of urination, pain, tenesmus and burning.	Frequency of urination, pain, tenesmus and burning.	Frequency of urination, pain, tenesmus and burning. Heart feeble, arteries diseased.
8. Complications.	Attacks of urethral fever, epididymitis and hematuria (kidneys normal.)	Same, but kidneys only fairly healthy.	Same, but kidneys too much diseased for operative procedure.

possible, should be placed in a hospital. It is a sore temptation for the house-surgeon in such a case to draw off all the urine in the patient's bladder. If this be done and if the patient's kidneys be already damaged surgically or medically, acute renal congestion may take place, with the result that the amount of urea secreted, which probably had been deficient, may be very small indeed, and the patient may become uremic and may die in a few days or even in a few hours. If, with great difficulty, the patient succeed in rallying from such a uremic attack, he will probably have a cystitis to contend with and it will take him some time to recover from this complication. It is well, therefore, to remember the following rule in retention: *viz.*, never draw off more than sixteen ounces of urine the first time; then wait four or five hours and draw twelve ounces more; finally, eight ounces should be drawn every two hours until the bladder has been emptied. Personally, I have seen hematuria follow the withdrawal of twenty ounces at one time and death from uremia result after the withdrawal of twenty-eight ounces.

as has been stated. Under such treatment the amount of residual urine will begin to decrease and more urine will be passed spontaneously. The catheter may then be used with diminishing frequency. It may be said, as a rule, that no patient with a marked degree of retention should be operated upon until he has been broken into "catheter life," and I believe that if this rule were heeded the mortality from prostatic operations would be much smaller.

If the kidneys be affected medically, *i. e.*, with nephritis, they must be brought into as good a condition as possible by enjoining a strict milk diet, by giving large quantities of water to drink, and by aiding Nature if necessary with digitalis, nitroglycerin, caffeine, niter, the potassium salts, and other diuretics. If the kidneys be surgically involved, as, for example, in pyelonephritis, they may be kept flushed out with large quantities of water, and the diuretics mentioned, as well as such urinary antiseptics as urotropin, salol, sodium benzoate, and others, will find a place in the treatment of such cases.

The immediate preparation of the patient for a

prostatic operation varies, in a measure, according to the anesthetic to be used. If local anesthesia only be employed, or if nitrous oxide be used, the patient may take his meal or meals at the regular time before the operation; but if ether or chloroform is to be given, he should go without food on the day of the operation. In any case, the bowels should be moved and the rectum washed out just before the patient is brought into the operating-room. The washing out of the bladder should be done prior to the administration of the anesthetic, as valuable time is lost in doing this afterward, and it must be remembered that in such operations the length of the narcosis should be limited as much as possible.

Prostatotomy.—It is not necessary to say much about the Bottini operation, as it is now familiar to everybody. To recapitulate the steps of this operation very briefly, it suffices to say that from six to eight ounces of a saturated solution of boric acid are first introduced into the bladder; the Bottini instrument is then inserted, and its beak is turned downward and caught behind the base of the prostate. If the instrument does not enter easily, the patient's hips should be elevated. Cold water from a reservoir is allowed to flow through the hollow part of the instrument in order to cool it during the operation. The electricity is now turned on and the posterior cut is made. The instrument is next turned to one or both sides, or to the top, and similar incisions are made. The cut through the base is usually from three to four centimeters in length and is the most important one, while those through the sides and the front are from two and a half to four centimeters in length. The strength of the current used is about forty-five amperes.

Complications during Prostatotomy.—The electricity may give out, thus allowing the blade to cool while it is cutting, and, if the operation be continued, the blade will be turned. It is therefore necessary to watch the hand of the dial on the battery box during the operation, and the instant we see it swinging back to zero the screw controlling the blade must be quickly turned and the blade drawn back into its slot, thus discontinuing the operation. Batteries are heavy and very apt to give out at the critical moment, and I think it is better to use the rheostat and transformer in connection with the "street current," wherever possible.

Movement on the part of the patient during the operation is also an annoying and sometimes a serious complication. A movement of the patient away from the surgeon may cause the blade to go over the prostate into the surrounding tissues and necessitate an immediate perineal section. In such cases the bladder should be drained through the perineal tube.

In some instances difficulty has been experienced in passing a catheter after the prostatotomy, probably because the operation has disturbed the urethra to such an extent that it will not admit an instrument that easily went in before prostatotomy. In such an event, also, a

perineal section with provision for bladder drainage should be performed. It will be seen, therefore, that in any case it is well to have the consent of the patient to do whatever the exigencies of the case demand during the operative procedure.

Complications after Prostatotomy.—If there be but a few ounces of residual urine, the use of the catheter may be discontinued, provided the patient pass a sufficient amount of urine spontaneously. If not, the catheter should be passed occasionally to see how much urine is present. If the patient has had complete or almost complete retention before the operation, a plugged catheter should be retained for a few days, the plug to be withdrawn from four to six times daily. Urotropin or salol, in doses of ten grains each, should be given three times daily, and large quantities of water should be drunk. If the quantity of urine passed be small at the end of forty-eight hours, a mixture containing twenty grains of potassium acetate and thirty minims of spirits of nitrous ether should be given three times daily in a glass of water, and in addition large quantities of water should be drunk to promote diuresis.

Within from twenty-four to forty-eight hours after the operation there is usually a reaction, consisting of a chill followed by a rise of temperature to from 101 to 105° F. This is most alarming, although it rarely causes death. At the time of the chill hot bottles may be placed at the feet of the patient, hot whisky, with quinine and codeine, given internally, and extra blankets should be put on the patient. The temperature then begins to go down and materially decreases as soon as the diuretics produce a good flow of urine. As a rule, the danger point may be said to have been passed when this occurs.

Hemorrhage is not a frequent complication, but if it should occur in a mild form the bladder should be flushed out with hot water, or, if the bleeding be severe, a perineal section should be performed and a large tube should be inserted and well packed in order to stop the hemorrhage through pressure.

If cystitis be present at the time of the operation, the bladder should be washed out afterward through a catheter twice a day with boric-acid solution and every other day with a nitrate-of-silver solution. Patients can train themselves to wash out their own bladders and urethra. It is very convenient to be able to wash out the urethra in case there is a retained catheter. This can be accomplished by filling the bladder with the solution through the catheter and by directing the patient to pinch the catheter and to try to pass his urine. In this way the fluid will be passed along the sides of the catheter, flushing the urethra from behind.

One of the most obstinate symptoms to treat after the operation is the burning and scalding before and after micturition which the patients experience. This is often due to passive congestion of the bladder and gives rise to frequency of urination.

After the operation sloughs are thrown off for four weeks, and it is not until the sloughing has entirely ceased and until the gland has contracted as the result of the diminished and cut-off blood-supply that we can estimate the result of the operation.

Often the surgeon will receive discouraging reports from a patient after prostatotomy, but it must be remembered that such prostatics are sometimes markedly neurasthenic and that, if the kidneys be in good condition and the bladder draining well, there is no cause for alarm. If the kidneys be working too freely, it must be regarded as a bad sign, especially if the quantity of urine be large the specific gravity low, and the pulse rapid. These patients usually have pyelitis or interstitial nephritis.

Results of Prostatotomy.—The results of this operation are most favorable. I will quote from Freudenberg's article, published in the *Centralblatt für die Krankheiten der Harn- und Sexualorgane*, 1900, in which he gives statistics of 753 cases. In 622 of these the operation was successful and only 44 deaths, or 5.8 per cent., were recorded.

Prostatectomy.—There are many methods of performing prostatectomy, but I shall mention only the operations that I have personally devised and am in the habit of employing, namely, the vesicorectal and the perineoprevesical. The vesicorectal method is briefly as follows: A suprapubic cystotomy is first performed. Two fingers of the left hand are inserted into the rectum and the index finger of the right hand into the bladder and the prostate is palpated bimanually. A pair of sharp-pointed curved scissors are passed into the bladder and the points are thrust into the most prominent portion of the prostate, just behind the internal meatus. The blades are now opened and the tissues covering the gland are torn. The finger-tip is inserted into this tear and the finger worked around between the gland and the capsule, while counterpressure is made by two fingers in the rectum. After the gland has been enucleated I cut through the floor of the prostatic urethra in order to prevent the formation of a pocket. The patient is then brought into the lithotomy position, an external urethrotomy is performed, and a perineal tube is inserted for drainage. Another tube is inserted into the bladder suprapubically and that viscus is sewn tightly up to this drain. The muscles, fascia and skin are closed. The suprapubic tube is left in for one week and the perineal tube for three or four weeks. This is the quickest way of removing the prostate with which I am familiar.

The perineoprevesical method consists, first, in the making of an incision suprapubically into the prevesical space without going into the bladder. The patient is then placed in the lithotomy position and an external perineal urethrotomy is performed; after this a pair of sharp-pointed scissors are passed into the perineal wound and the tissues over the apex of the prostatic urethra are cut through. The tip of the right index finger

is then pushed in between the capsule and the gland, and enucleation is begun, while counterpressure is made over the base of the prostate by the fingers in the prevesical space. After the gland has been removed a perineal drainage tube is inserted into the bladder and the skin and superficial perineal fascia are sutured close to it. The suprapubic wound can then be closed or a drainage tube may be left in it for a day or so.

This I consider to be the safest method of performing prostatectomy that has yet been devised, although it is not as rapid as the rectovesical method just described.

After a prostatectomy the patient should have a hypodermatic injection of one-thirtieth of a grain of strychnine, and a pint of hot saline solution by enema every four hours, to be retained, alternating with water by mouth, hot bouillon or whisky, in such a way that the patient gets something every hour. Water should be pushed from the first, and, if the patient vomits, more should be given.

Complications after Prostatectomy.—Shock is usually due to the rough manipulation of the part, for it must be remembered that this is one of the most sensitive centers of the body and is richly supplied with nerves by the sympathetic plexus. I have noticed that during this operation the condition of the patient suddenly changes after enucleation of the gland and well remember in one of my first cases the expression of an expert anesthetist, who, while holding the cone with one hand and the patient's pulse with the other, feelingly remarked, as I pulled out the gland, "He must have felt that." The patient's pulse had suddenly gone up and become irregular, then steadied itself at an increased rate. For this reason we must be prepared to act quickly at the time, by giving strychnine hypodermatically and to anticipate shock, if it has not already occurred, by giving more strychnine and hot saline enemas alternately. Hemorrhage is also greatly to be feared, for it is often profuse. I do not think, however, that it is so alarming as it often appears to be, as it may be mixed with urine and with the solution used. Very hot water irrigated into the hollow where the prostate has been will usually stop the bleeding. If not, the suprapubic tube which goes down into this cavity should be carefully packed around with gauze, as well as the tube entering by the perineum.

After every operation on the urinary tract renal congestion followed by uremia is apt to occur, especially if the kidneys are damaged medically or surgically. With the object of preventing this, it is desirable to stimulate the activity of the kidneys as soon as possible. This is most easily done by giving the patient large quantities of water to drink, and it is remarkable how much fluid can be tolerated in this way. I can recall one case in which over a gallon of water was given during the first twelve hours following the operation.

Difficult drainage is another cause for alarm, as it gives the patient great discomfort and is a

source of worry to the surgeon. It is usually due to a plugging of the perineal tube by blood-clots or shreds. Naturally we should always watch the drainage from the perineal tube, and, if it be not free, the cause of the obstruction should be investigated. If it occur before the fourth day, at which date the suprapubic drainage is withdrawn, the bladder should be flushed out through the suprapubic tube, which will usually establish a flow through the perineal tube. In case, however, this is not sufficient, the bladder should be well flushed out from below, and after the suprapubic tube has been withdrawn the bladder should always be flushed out through the lower tube. The perineal drain should be allowed to remain *in situ* for three weeks, after which a retained catheter may be passed into the urethra to remain, probably, until the perineal wound has closed.

If the patient has a temperature after the operation for some time, it is a sign that suppuration has taken place as the result of urinary leakage and consequent septic absorption. This is best combated by urinary antiseptics given internally, by searching for and draining any accumulation of pus that may have taken place around the neck of the bladder, by washing the bladder out with an antiseptic solution, and by supporting the patient's general condition with alcoholic and other stimulants.

Epididymitis occurring after the operation is due to inflammation of the prostatic urethra primarily present or excited by the presence of the perineal tube in this passage. It is best treated by ichthyol ointment, or by hot applications and rest. Fistulæ may follow either the suprapubic or the perineal operation. As a rule, if the perineal drainage be free, the suprapubic wound will close in three weeks. If the perineal wound does not close after the drain has been withdrawn, it is advisable to introduce a retained catheter and to allow it to remain *in situ* until union has taken place. Incontinence may follow a prostatectomy on account of the stretching of the fibers of the vesical sphincter through the prostatic hypertrophy, or on account of the muscle having been torn during the operation. It is easy to see how lax the muscle would be at such a time, but its tone is usually reestablished later without resort being had to any instrumental interference.

Neurasthenia is a condition from which a great many prostatics suffer prior to any operative procedure. It is due to the interference with the functions of the internal genitals through the pressure on the follicles and ducts of the prostate as well as on the ejaculatory ducts which run through it. It can in a way be compared to the menopause in the female. This neurasthenic condition is markedly increased after operative procedures on the gland, and one frequently sees men, who have always been strong-minded and self-reliant, become irritable and despondent after prostatic operations and even weep on the slightest provocation. This can probably be ac-

counted for in prostatectomy by the arrest of the functions of an important system, the genital, by tearing out the prostate gland, its central point, and destroying the ducts which pass through it as outlets of other organs beyond.

Results of Prostatectomy.—In the literature of the last few years there have been reported 152 cases of prostatectomy by the suprapubic, perineal, and the combined methods. Of these 95 were suprapubic operations and the remainder perineal or combined. Among these cases there were 25 deaths and 127 recoveries. Of the latter class of cases, 17 are spoken of as failures, 27 as successes, and the remainder as good results, improved, or recovered. It is difficult to say, therefore, what the exact results were in the cases spoken of as recoveries, excepting in the cases spoken of as failures, and in those recorded as cured or successfully operated upon. Recovery, it must be remembered, may mean that the patient has either recovered from the operation or recovered his former health.

In comparing the results which I have collected in these statistics on prostatectomy with those of prostatotomy, it will be noted that in prostatotomy 86 per cent. of the cases were cured, 5.8 per cent. died, and in 11 per cent. failures resulted; while in prostatectomy 78 per cent. of the cases were cured or improved, 16.5 per cent. died, and in 3 per cent. failure resulted. It will be seen, therefore, that the mortality in prostatectomy is three times greater than that of prostatotomy. In those who survive prostatectomy the failures are not as frequent as in those operated by the Bottini method. It is difficult to say, in fact, what constitutes a cure in these Bottini cases. It seems to me that if a patient can empty his bladder of all urine, excepting perhaps half an ounce of residuum, the result obtained can be said to be very satisfactory, especially if the patient be relieved of all his symptoms. Of course, the surgeon and the patient look upon the result from different viewpoints. If the amount of residual urine be very materially decreased and if the condition of the urine be improved, the surgeon considers the result satisfactory; on the other hand, the patient does not consider the result to be good unless the disagreeable symptoms, such as the frequency of urination, pain, tenesmus, and burning, be removed. It may be said that in those who recover from prostatectomy the results are much better and more permanent than in patients successfully operated on by the Bottini method. In prostatectomy we never have to perform the operation but once, while prostatotomy may have to be repeated.

Conclusions.—To sum up the clinical and statistical data obtained upon the subject of prostatic operations during the last few years, we must conclude:

1. That the general practitioner should be educated to palpate the prostate and to use the other simple means of diagnosis employed in determining the shape and size of the organ. In default of previous training in rectal palpation, he should

at every opportunity familiarize himself with the feel of a normal prostate, and should thus educate his touch for prostatic diagnosis.

2. That the prostate corresponds pathologically in the male to the uterus in the female, and that its examination is just as important as uterine palpation, in which the general practitioner is as a rule far more expert.

3. That in prostatics the care of the bladder before operation is a prime factor. The importance of training such persons to observe the minutiae of catheter life, of making the kidneys as active as possible, and of rendering the urine as nearly normal as possible before prostatic operations, cannot be overestimated.

4. That every prostatic operation should be preceded by a thorough general examination, including an examination of the heart, the arteries, the urine, the bladder (for possible presence of stone or tumor) and of the urethra (for possible presence of a stricture), as well as by palpation of the kidneys.

5. That the statistics of the results of prostatic operations demonstrate that the successful cases belong most frequently to the class having a small amount of residual urine, and a moderate prostatic enlargement. An early diagnosis is, therefore, of paramount importance.

6. That the choice of the operation must be based upon the lines drawn here, according to the age, the resisting power of the patient, and the size and shape of the prostate, with special reference to the seat and extent of the hypertrophy, as well as the condition of the kidneys and bladder.

7. That in the conduct of prostatotomy as well as prostatectomy the prime object is to avoid so far as possible the occurrence of shock and to prevent the congestion of the kidneys by proper precautions during and by proper treatment after the operation.

75 West 55th Street.

THE INDICATIONS FOR AND LIMITATIONS OF THE BOTTINI OPERATION.

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It is almost needless to state that this operation, like a great many others, has suffered from the exalted enthusiasm of those who have recommended it for every case of prostatitis. On the other hand, it has been severely condemned by many surgeons who have never practised it, but have derived their conclusions from theorizing. In reviewing this subject, I do not wish to discuss the minor details but desire to present the merits of the Bottini operation, and advance positive indications for, and limitations of, this procedure. Neither will I present an array of statistics, for it is understood that, when there has been such variance of opinion, they can only cause incorrect conclusions. In this manner, it will be possible to narrow down the cases fitted for this procedure to a comparatively small percentage of all the cases of prostatic hypertrophy which cause urin-

ary symptoms, because it is these only that we can take into consideration.

In looking over the literature, we find a slight variance of opinion as to the exact *indications*. Some think that a true prostatic hypertrophy with urinary symptoms, whether with or without retention of urine, is sufficient. On the other hand, we are advised to wait until it is necessary to use a catheter to relieve the symptoms. I will not discuss whether or not it is advisable to operate only when we find an incomplete retention of urine or whether it is best to operate early before retention sets in; but when we have urinary symptoms, whether or not palliative treatment should be tried previous to any operative interference, it is certainly not too early to operate as soon as a patient is obliged to use a catheter; now, if the necessity for this procedure, catheterization, can be avoided altogether by an operation, the subject must be seriously considered.

It has been put forward that the earlier the operation, the less advanced the pathological condition; and that the less often do we find complications, the greater the chances for perfect success; and statistics have proved this to be true. Now, when it is positively known that manifold conditions of the prostate gland cause one and the same series of symptoms, it is absolutely necessary for the success of the Bottini operation to select the cases which are favorable for this procedure. In other words, we have certain *limitations* of the prostatic pathological changes which, when operated on by this method, permit of good expectations as to the ultimate outcome. These pathological changes of the gland, naturally, from the character of the operation, must occur just at the border between the urethra and the bladder. There can be no difference of opinion on this point.

Absolute *contraindications* can be put forward only in those cases in which the anatomical pathological conditions preclude the possibility of any favorable result. We can definitely state that when there are alterations in the prostatic urethra, such as nodules or angulated projections which may cause obstructions; or, in another distinct class, when the changes in the gland impair or completely abolish the functions of the bladder—cases belonging to either of these divisions are absolutely not to be considered for this operative step.

Innumerable writers have warned against operating when nephritis and other morbid conditions of the kidneys, pyelitis, ureteritis, cystitis, sacculated condition of the bladder or atony of the bladder are present. Then, again, when arteriosclerosis is very marked; in other words, when the general conditions are poor. Age of patients must also be considered, especially if some form of pyemia or arterial disease or both be present. Absolutely and most emphatically it can be said that good results have been obtained in some cases under these conditions; yet it is true that we must take these into consideration when deciding on such a step and must never

forget that when one or more of these are present the operation should not be forced. Yet they certainly are only *relative contraindications*.

The so-called "prophylactic" Bottini operation of Orville Horwitz must, in every case, be followed by good results if the case be properly selected and if the technic of the operation be faultless, because in these cases none of the contraindications or relative contraindications are present. As with everything else that has withstood the test of time, so with this operation. Here we find objections raised to it largely by theorizers—surgeons who have never performed it, and by those surgeons whose results have been unfavorable on account of poor technic in poorly-selected cases, and by those who have operated but few times. It is true that objections of a solid nature have been brought to bear against this operative procedure. They are to a great extent not justifiable. The one objection which has been held up as the most flagrant of all is the charge of "working in the dark." With anyone who has the necessary diagnostic technic at command, this can scarcely be true.

I wish to emphasize the fact that if it be not possible to make a thorough cystoscopic examination, it is best not to undertake the operation. In other words, if cystoscopy cannot be employed, the operation should not be considered. Again, when using the Freudenberg-Bierhoff incisor, we can, just at the moment of beginning the operation, see whether or not the incisor is in the correct position. After each incision, an examination can be made. After the completion of operation, if the technic be correct, the different incisions as to depth and length can be examined. With all these helps at our command, the charge to a certain extent does not hold.

Another accusation is that cicatricial contraction results. This cannot be the case if the barrier or barriers be completely severed, yet here, again, it might occur if the technic be not correct. Still another charge is that it is necessary to operate several times in some cases in order to obtain certain results. This is becoming less necessary as the selection of cases has become more careful and the technic more perfect. That complications occur cannot be denied. For the most part they are caused by poor technic. Phlebitis, hemorrhage, incontinence, perineal abscess, vesicorectal fistula, acute cystitis, cystopyelitis and minor complications have been noted. We know that the anterior incision, which has been practically abandoned, was the cause of the phlebitis in the large majority of cases (here the vessels of the prevesicular space became involved), and again this can be put down to the lack of exact information in regard to the case. For this same reason, phlebitis of the hemorrhoidal veins has been caused. Again and again, this fact stares us in the face and we see why we may cause periprostatic and perineal abscesses, incontinence of urine, vesicorectal fistula, etc., simply because the minute diagnostic details are neglected previous to the operation.

It must be admitted that this is not the only cause, as accidents will happen here as in any other branch of surgery, but I do not bring this forth as justifiable. Take, for instance, a case in which the female and male parts of the Bottini instrument became displaced by cough, or other cause, because they had not been properly adjusted prior to making the incision. Our diagnostic means had told us to make an incision five centimeters in length, which would have been correct if the instrument had not been displaced; but, after displacement, the distal end of the incision was brought down into the triangular ligament or even into the perineum. I have one case of this character to record.

Hemorrhage of a dangerous character has been noticed immediately, as late as ten to twelve days and even longer after operation. In the cases in which it has occurred within twenty-four hours of the operation, it can scarcely be denied that the hemorrhage was due to a crushing of the glandular tissue and to the fact that the blade was not sufficiently heated to cause an eschar which would remain in place at the time of the return of the blade. Hemorrhages at a later period are caused, in a certain number of cases, by improper after-treatment, *i. e.*, by rough and unnecessary catheterization and insufficient care of bowels, diet, or by rising too early after operation—in other words, by lack of proper after-care. Some of the late hemorrhages undoubtedly have been caused by the natural separation of the burnt tissue from the prostatic tissue, leaving small vessels patent. These certainly are few in number and cannot be avoided. Uncertainty of prognosis will hold in a certain number of operative procedures, but the uncertainty disappears in the ratio to the certainty of detailed diagnosis and correct technic. This cannot be doubted, for the truth is readily to be seen. For this reason, this objection does not hold true any more in this than in any other operative procedure.

In a recent article the statement was made that the Bottini operation is an easy one and that anyone can perform it. It certainly is best to contradict emphatically such a statement. It is on account of such teachings that we hear of such bad results and absolute condemnation of this operative procedure. It is a step to be taken only by one thoroughly familiar with the handling of instruments within both the bladder and the urethra, so as to have precise conception of each step in an operation with such an instrument as the Bottini.

Furthermore, it is necessary to be able and also to be willing to recognize at once any accident which may occur at the time of operation or any complication which may arise subsequently. By a secondary operative procedure, life can be saved in some cases; in others, the results of the Bottini operation may be improved. The results, in other words, depend oftentimes on the rapidity and accuracy with which any of these secondary steps are performed. To illustrate, in the case in

which the instrument was displaced and in which I cut into the membranous urethra, as soon as I was certain of it, I made a median perineal incision and inserted a drainage tube. This patient made an uneventful recovery with very good results. In cases of severe hemorrhage a suprapubic cystotomy is often indicated.

It must not be forgotten that the after-treatment of this operation plays a part in the results. A patient after this operation immediately requires careful watching. Even should a permanent catheter be in place, we must be on the lookout for urinary infiltration, perineal abscess, etc. When such conditions are excluded and after the permanent catheter has been removed, the question as to how often and when to catheterize arises. This is not as important as by whom, because great care and delicacy should be employed.

This review is not an attempt to compare the results of one operation with the results of other methods, but an attempt to show that there is a limited number of cases in which the Bottini operation can consistently be recommended and in which the outcome must be satisfactory if the cases be carefully selected and the technic perfect. From this, it must be concluded that the operation stands on a perfectly safe and sound basis compared to any operative step.

From the foregoing, it appears to be justifiable to draw the following conclusions: Good results of the Bottini operation will depend (1) on the careful selection of cases; (2) on the proper technic of the operation and proper after-care; (3) on the immediate correction of errors or mishaps.

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GONORRHEA OF THE PROSTATE.*

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In an essay, published three years ago,¹ I noted the extraordinary frequency of those complications of gonorrhea which are called blennorrhagic lesions of the prostate. Since then my effort has been confirmed by a number of writings made public, especially in the fourth session of the French Urological Congress. Among these were contributions by Denos,² Goldberg,³ Hogge,⁴ Janet,⁵ von Frisch,⁶ Jadassohn⁷ and finally Casper,⁸ who very explicitly detail the symptomatology of the disease; I may therefore now limit myself to some data thereon.

I have mentioned the frequency of gonorrheal involvement of the prostate. I may add that this complication appears very early, much earlier, indeed, than is ordinarily accepted. In many cases, despite the absence of subjective manifestations and despite absolutely clear second urine, the prostate is found diseased within eight days of the appearance of the first symptoms of gonor-

rhea. If gonococci persist from the third to the fifth day after an acute gonorrheal urethritis has come under treatment, and if no complications have appeared, and when the urethral mucosa has no para-urethral passages or congenital deformity, I suspect an extension of the gonorrheal process to the prostate, whether the second urine be clear or not.

The involvement of the prostate by the gonorrheal process can partially be prevented by therapy only in certain cases. I will briefly recur to this in the discussion of treatment. But adequate therapeutic measures surely enable us to limit materially the frequency, especially of gonorrheal posterior urethritis. Recent statistics have shown this.

To investigate this matter I studied 651 cases of gonorrheal urethritis from among my dispensary cases. These showed posterior urethritis in 210, or 32¼ per cent. I must, however, note that not a small number of these patients came under treatment with established posterior urethritis. In all the 210 cases the prostate was diseased, that is, in 100 per cent. of those with posterior urethritis. In 96 cases of gonorrheal prostatitis the disease was but eight days or less than eight days old. The diagnosis was based upon the microscopical and bacteriological findings in the prostatic secretion and then upon digital examination *per rectum*. Both examinations are inevitably necessary for the establishment of a definite diagnosis.

I omit from detailed consideration just now the special findings by palpation, as I do the frequency of disease of one or both of the lobes. I also omit from consideration in the present paper discussion of involvement of the seminal vesicles.

My attention has frequently been drawn to the fact that many authors found gonococci in the prostatic secretion of but very few patients. Equally the view prevails that the finding of gonococci in the prostatic juice is more difficult than their discovery in the urethral secretion.

Simple methylene-blue staining of the prostatic secretion enables me to establish the presence of gonococci in microscopical examinations in the majority of instances. In doubtful cases Gram's method, and occasionally cultures, were employed.

Examination of the 210 cases referred to showed: Gonococci, 179 times; other bacteria, 20 times; aseptic secretion with numerous leucocytes, 11 times. I am decidedly a partisan of the opinion that the presence of numerous leucocytes in the secretion of the prostate and seminal vesicles must be deemed pathological and indicative of prostatitis or seminal vesiculitis. This holds good even when the bacteriological findings are negative.

In many cases in which the urethral secretion does not for a long time show gonococci, they will not be found in the prostatic secretion either, as was the case of twelve patients reported by Cohen⁹ of Berlin. The proof of the presence of gonococci in old prostatitis may be very difficult.

*Translated and presented on behalf of the author before the Gynecological and Urological Section of the New York Academy of Medicine, Nov. 18th, 1901, by T. M. Townsend, M. D., of New York.

The establishment of a diagnosis, which is so important to the patient, requires repeated examinations and very thorough microscopy, not infrequently after the employment of provocative measures.

I will now enter into a consideration of consent to marriage and similar things connected herewith. I will, however, briefly note the observations concerning a patient who infected his bride five years after a physician had declared him cured of gonorrhea. There was no discharge and the absolutely clear urine carried no filaments, but the prostate showed two softened foci and the secretion expressed therefrom contained numerous leucocytes and albeit sparse, yet distinctly recognizable, gonococci. Secondary infection of the prostatic gland ducts may persist for decennia. This fact explains many cases of necrospemia and sterility.

To render microscopical examination of the prostatic secretion as free from objection as possible, I proceed as follows: After thoroughly washing the posterior and anterior urethra with a solution of protagol, I insert a sterile endoscopic tube to the end of the membranous portion and cleanse the mucosa in the field to absolute dryness. This cleansing is done with sterile cotton tampons. I then take from the tube the juice obtained by massage and examine it. In some cases I limit my work to thorough washing of both urethral divisions and avoid expelling the juice removed from the prostate by massage, by pressure upon the pendulous portion, as is often done. By this latter manipulation the contents of the glands and lacunæ of the anterior urethra are expressed and the results obtained are consequently not free from objectionable features. Even without pressure upon the pendulous portion, prostatic secretion almost invariably presents at the meatus, several moments after prostatic massage.

The examination by means of the tube must always be followed by washing of the anterior and posterior urethra. The fact that of 37 cases I examined in this manner one was affected with epididymitis fourteen days later, shows that no danger to the patient is incurred thereby.

Owing to the prostatic anatomical construction, the pathological conditions induced by gonorrhea are of a complex character. This explains the difficulties of therapy in these cases. I avow complete adherence to the very clear and logical exposure of these conditions which Janet⁸ gave in his paper, "*Traitement des Prostatites Chroniques*," read before the last Urologic Congress. In keeping with the greater or minor cystic changes induced by catarrh in the gland-ducts, in relation to the patency or occlusion of their mouths, the success of treatment must be more or less rapid.

Virulent gonococci maintain copious secretion and keep open the distended gland-ducts. Evacuation of the gland then succeeds with astonishing readiness. Gonococci or other bacteria, *e. g.*, bacterium coli, the virulence of which is diminished,

may be present for years in the gland without evoking marked secretion.

The inflammatory process gradually contracts or eventually occludes the duct-orifices, thus forming a material obstacle to the evacuation of the gland. This anatomico-pathological state shows that successful treatment can rest exclusively upon mechanical evacuation of the gland-ducts, attainable by massage of the gland through the rectum. The organ in question is of manifold configuration and it is of transcendent importance that the various foci be expressed in accord with the degree of inflammation in each; for this purpose varying degrees of pressure are required. It is evident that the only reliable instrument for this purpose is the physician's finger. All rigid instruments, such as have been proposed by Féléki¹⁰ and Finger¹¹ for the purpose, are inadequate and prove injurious in many cases. It is my opinion that this form of massage should be performed by physicians and not by masseurs. But the finger cannot reach the most peripherally situated gland. To effect vigorous contraction of these parts Hogge⁴ and Janet⁸ employ the faradic current, for the establishment of electro-massage. As these instruments materially limit the finger's sense of touch, I have had made an instrument which allows the application of the faradic current while maintaining fine sensibility of the finger. Massage must always be followed by washing of the anterior and posterior urethra, to thoroughly remove the expressed secretion, some of which often enters the bladder. The solution used for such irrigation must vary in accordance with the microscopical findings. If gonococci be present, the use of silver preparations will be advisable; I deem protagol the most preferable of these. If other bacteria be found, mild solutions of corrosive sublimate are used for irrigation. If the secretion be aseptic, astringent solutions are employed.

The mechanical treatment is reinforced by medicinal therapy. In this it is advisable to employ the drugs in watery solutions injected into the rectum. The diet must be regulated, hot baths employed and heat must be directly applied to the prostate. I have devised an apparatus for this purpose which is made for me by L. & H. Lohnstein of Berlin.

It is of the greatest importance, especially when other bacteria than gonococci are present, to direct attention to thorough asepsis of the lowest division of the intestinal canal. Primarily, as Guyon and his pupils, especially Nogués,¹² have pointed out, treatment must be directed toward the relief of the pelvic congestion. Very acute inflammatory processes in the prostate which tend to rapid abscess-formation present an absolute contraindication to any local treatment. I also deem it positively injurious to perform massage when there is an elevation of temperature; in such cases complete rest in bed is necessary. Otherwise, however, properly performed massage can never injure the patient. On the contrary, one acquires the impression that mas-

sage and washing at the proper time prevent further complications. In the 651 cases of gonorrhea before mentioned, epididymitis occurred in the course of treatment in $2\frac{1}{2}$ per cent. of the cases.

In view of the frequency of gonorrheal prostatitis, in view of the great danger of further complications which may result therefrom, and, finally, in view of the great difficulties which so often impede treatment, all therapeutic procedures must primarily be directed to the avoidance of invasion of the prostatic ducts by the gonorrheal process. This is possible in all cases which come under treatment while the infection is fresh and has not preceded beyond the anterior division of the urethra.

Aside from successful prophylaxis of gonorrhea, the possibility of which I showed in a paper two years ago,¹³ I submit a species of abortive treatment for cases of gonorrhea which come under treatment soon after infection. My colleague Levin and I have used it for several months. After the microscopical diagnosis is made, the patient is ordered to urinate. If the second urine be clear, the anterior urethra is gently irrigated with a $\frac{1}{4}$ per cent. solution of protargol until the solution flows off clear. If the patient be hypersensitive the urethra is cocainized with a weak solution (1 to 200), to which some protargol is added as a precautionary measure. Then, closely following Janet's directions, a copious irrigation is applied to both urethrae with the same protargol solution. The fluid is allowed to enter the bladder until the patient experiences a desire to urinate; this requires about one-fourth to one-half a liter. The patient then empties his bladder. This procedure is repeated on the two following days.

After the first twenty-four hours have elapsed the discharge, which was purulent and abundant, has become sparse and serous and in most cases gonococci cannot be found. Leucocytes disappear in a similar manner and the specimen shows only an abundance of epithelia and fibrin. If, however, gonococci persist to the third day, it shows that the disease has not been aborted. The cause of the failure is that the prostate was already infected, or that para-urethral passages exist in which gonococci are beyond the reach of treatment, or deformities of the urethral mucosa, folds, or valves may be the cause of the failure. In the latter cases slight surgical intervention brings immediate relief.

I have treated 60 cases in this manner. In 27 of these (45 per cent.) the success was positive, i.e., after three washings, and in three after one single washing the gonococci definitely disappeared, despite many provocative irrigations. I kept nearly all these patients under observation for weeks and months. In 26 of these cases gonococci persisted after three days' treatment. Three of these had para-urethral passages infected with gonococci. After incision of these by means of Janet's trajectome,¹⁴ two or three washings sufficed to cause the definite disappearance of the

gonococci. Two cases had congenital valves and plications with very narrow meati. On removal of the impediments the cases proceeded like those just described. Although 21 cases had clear second urine, it was evident that the prostate was infected and I have sufficient reason to assume that this infection was present before beginning the abortive treatment. Of the dispensary cases 7 remained away from observation. Some of these returned to report themselves cured, but as they were not subjected to careful observation I do not consider them among the positive results.

At all events, these facts prove that in a large number of cases rapid disappearance of the gonococci can be secured by the abortive method described, especially when the patient comes under treatment early. Moreover, this treatment has in no instance proved injurious. This rapid disappearance of the gonococci causes avoidance of the extension of the disease to the prostate and deeper lesions of the urethral mucosa.

In most cases in which the prostate was infected by gonorrhea, manifold anatomical lesions of the urethral mucosa existed. After the urethra and its adnexa have become aseptic, these anatomical lesions must be precisely determined by the aid of the endoscope, the exploratory sound and rectal palpation. Especially must Janet's¹⁵ very proper demand be emphasized that adequate mechanical and chemical treatment be directed to the cure of these aseptic lesions. The chemical and instrumental treatment directed to this end has the additional great advantage that it brings to the surface bacteria hidden in the deeper layers of the tissues and the prostatic ducts. Those bacteria which are enveloped in round-cell infiltrations then become mobile and accessible to treatment. It has the further advantage that the recurrences take place *before* the patient has been dismissed as cured.

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PROSTATIC HYPERTROPHY.¹

BY LEWIS SCHOOLER, M.D., LL.D.,

OF DES MOINES IA.

FAILURE of recognition by both patient and physician of the signs of this affliction, due to the insidiousness of their onset, renders the condition more or less grave; nevertheless the patient is conscious of the fact that he is called upon to void his urine more frequently than usual and that he rises twice or more times during the night, succeeds in passing only a small quantity at a time, but is mentally satisfied that he has entirely emptied the bladder at each effort. Being familiar with these symptoms, he attributes these signs to an inflammatory condition. The higher level of the urethral orifice prevents the complete evacuation of the contained urine, leaving in the beginning an amount of residual urine of two or four ounces in the early stages of the disease; as the symptoms increase and the difficulty becomes more marked, the bladder becomes distended frequently to its fullest capacity and, instead of a desire to void, the patient finds a constant dribbling of urine, which is nothing more than the overflow from a greatly distended and damaged viscus. Hemorrhage may in some cases be an additional evidence of this change. The distention of the bladder forms a tumor above the pubis, reaching sometimes to the umbilicus, and if a digital examination be made per rectum, the prostate can be readily outlined and its size determined at least approximately, as the lateral lobes in my experience are always involved and the signs of enlargement are present in the entire gland, not being confined to a single portion. It must not be understood that this is true to an equal extent of all parts, the difference being one of degree and direction. A gland may be so enormously enlarged that it interferes with defecation without any effect on urination; these are the cases in which the enlargement is in the direction of the rectum. When the enlargement extends toward the fundus of the bladder, beginning at the margin of the bladder and the urethra, the direction is upward and backward, carrying the posterior urethral extremity with it.

Tumors are distinct areas of growth and may appear in the gland as adenomata and, like the gland itself, may grow in any direction and produce distortion and loss of function. While these symptoms are present (most of them) in all cases, they are not typical in every case. The majority of the cases of this affliction do not result seriously, although occurring in those past middle life. In many persons the age should not be computed in years, but by the actual condition of the patient, particularly the circulatory system. The symptom of arteriosclerosis should always be elicited if present on account of its important bearing upon the prognosis. The loss of muscular power should always be carefully determined

for the same reason, for upon this symptom frequently hinge the chances of infection. A hopelessly-damaged bladder with atheromatous blood-vessels is usually indicative of a long-standing disease and, if infected, another complication is added which may belong to other affections not connected with prostatic hypertrophy. Systemic evidences of infection are inconsistent with a healthy mucous membrane of this organ.

Diagnosis.—When stricture is absent in a case of the prostatic age, the catheter will usually clear up all doubts and remove the residual urine, which is one of the strongest proofs of the existence of prostatic trouble. Rectal examination should not be omitted, as by this method information is elicited of a definite character concerning both lateral lobes, the median not being accessible by this method. The residual urine is of the greatest importance and the amount should be accurately measured. The amount of residual urine gives a hint, as to the condition not only of the prostate, but also of the bladder, the quantity increasing when the bladder is weak and the muscles have lost their contractile force. It also shows the chemical changes the fluid has undergone, which is a matter of great importance.

Retention or difficulty in urinating is experienced in many cases of moderate hypertrophy, depending upon the preponderance of enlargement of the urethral portion of the lateral lobes, as well as of the median, the latter raising the urethral level markedly. The relaxed, diseased and sagging bladder, frequently almost completely enervated on account of long retention or a diseased condition of the blood-vessels and muscular fibers, should not be overlooked. All sudden stoppages of urine should not be attributed to an enlarged prostate. Tumors of the bladder or fibrous degeneration, causing acute flexion of the urethra in the one and loss of contractile force in the other, may produce the same symptoms as an enlarged prostate, even though atrophy of that gland has taken place. Acute inflammation and ulceration of the posterior portion of the urethral canal should never be lost sight of in our efforts at diagnosis.

The symptoms being so variable and in some instances entirely lacking, it is well to bear in mind a few of the most prominent signs, and if they are absent other causes must be looked for. Anatomically considered, or in the non-enlarged prostate, we can safely eliminate the middle lobe; and Socin's position in combating the statement that the middle lobe is the most frequently enlarged is entirely correct. The deception in regard to the third lobe arises from the fact that most hypertrophies are unsymmetrical and that portion directed toward the bladder rises in that direction and is felt as a projection at the posterior portion of the neck of the bladder. The relaxation and sagging of the posterior wall exaggerate the apparent rise of the urethral opening. Exceptional cases are observed in which there is a nodular growth of the prostatic urethra which produces a tortuous canal and makes catheteriza-

¹ Read before the Western Surgical & Gynecological Society, Dec. 19, 1901.

tion difficult, leading to the impression that there is a stricture of the urethra. In these cases a metal catheter combined with a rectal examination is of the greatest value, as the growths compressing the urethra are situated just within the anus. The exact condition within the unopened bladder can be determined only by the use of the cystoscope, but in the worst cases the introduction of this instrument is attended with great difficulty and, not being within the reach of all, its use is not as common as it should be.

Prognosis.—The prognosis depends upon early diagnosis and prompt treatment. In the majority of the cases it may be said to be good, at least under surgical treatment, though not under medical treatment. I know of no drug or combination of drugs that can be relied upon to produce a diminution of the enlarged gland except in cases of simple inflammation. Manufacturing chemists have lauded sanmetto, ichthyol and other substances, but in my experience they are absolutely worthless; indeed it is difficult to perceive how any drug can influence a senile enlargement any more than a senile atrophy.

Massage.—Massage I believe to be of no use whatever and when it has been considered helpful I think that the diagnosis was at fault. If the increased deposit of tissue could be removed by this method, it would certainly be necessary to apply it to the entire circumference of the gland and not to one-third, which is probably all that can be attacked successfully. Aspiration is a temporary procedure which may be resorted to for the purpose of immediate relief of the symptoms and allows time for the preparation of the patient for the instalment of more radical measures or for the adoption of this plan permanently. It is claimed that tubes of a suitable shape, when worn for a long time, produce good results. The method is unscientific and extremely troublesome, and in no case have I seen any real benefit result.

Catheterization in a fair percentage of cases is successful for the purpose of evacuating the urine and keeping the bladder from becoming distended. The greatest objection to this method, aside from being troublesome to the patient, is the almost certain one of infection. There are few persons who can be depended upon to observe a rigid asepsis for any considerable length of time in these cases; besides, a catheter-life is a life of doubtful value in most cases. It has little if any beneficial effect upon the gland, but when it can be used and in the hands of those who are fortunate enough to escape infection, it is far preferable to continued aspiration or permanent drainage. But in these days of asepsis and improvement in surgical technic, it seems like a lack of courage on the part of the surgeon to recommend catheterization to a patient who is too old to comprehend the dangers of it, and who is usually unable physically and mentally to carry out an asepsis rigidly enough to insure his own protection.

Dilatation aims to preserve a channel for the voluntary discharge of the urine, *per vias naturales*, and is of greater value and less dangerous than any of the aforementioned procedures, for the reason that it is or should always be done by the surgeon himself, thereby insuring against infection and traumatism. When properly performed it causes a yielding of the tissues already formed and if instituted early enough prevents the encroachment of new deposits in the immediate vicinity of the urethra. It will give the best results, however, in incipient cases, and the catheter should be used frequently in order to ascertain whether the patient is emptying the bladder completely. Perhaps more favorable results would be obtained by this method if patients could be made to understand the necessity for frequent sittings and their longer continuance.

Cystotomy.—This measure is also a temporary or procrastinating procedure, and aside from furnishing relief of a transient nature, produces its best results in cases in which the bladder is infected or in which cystitis is present as a complication; it also affords a means of examination of the interior of the bladder and enables the surgeon to determine whether the cause of the obstruction is in the bladder, at the junction of the urethra and the bladder, or along the prostatic portion of the urethra, and whether there is a distinct enlargement of the so-called middle lobe, compression from pressure of the lateral nodular or unsymmetrical enlargement of the lateral lobes, or a sagging, toneless bladder; and, if inflammation be present, it permits rest by the rapid escape of the urine as well as by affording an opportunity of cleansing thoroughly the entire affected area. It also allows an opportunity for operation under the guidance of the eye and permits the pushing down of the gland by the finger in enucleation.

In the consideration of all of the methods just described none are intended to be radical, none are calculated to remove the cause; all are, however, intended to restore, partially at least, functional activity and to produce results sufficiently satisfactory to prevent the necessity of more radical procedures; until within the last five years they were the best that the profession possessed.

Dissatisfaction with them is clearly shown by the constant aim to discover something capable of giving better results. In a few cases they have served the purpose well and in the future will be resorted to in a very few selected cases; but the better knowledge of the anatomy of the prostatic gland and its pathology calls for an advance in our therapeutic resources that does something more than secure relief with a constant menace to the life of our patients, through infection, as well as a method that does not require eternal vigilance, and a knowledge of the fact that the life of the individual depends upon the careful regulation of the mechanics of artificial urination.

MEDICAL PROGRESS.

PEDIATRICS.

Congenital Heart Disease.—In the necropsy of a child which had had periodical attacks of cyanosis, R. C. ROSENBERGER (Archives of Pediatrics, Mch., 1902) found in an interventricular septum deficient at the base a small opening at the foramen ovale, pulmonary stenosis, and a malposition in the origin of the aorta. At the base of the interventricular septum a triangular area known as the "undefended space" is found, and this is the most common site of defect in the septum. A few such cases have occurred as a result of postnatal endocarditis, but in this case the associated lesions, and the smooth edges of the opening free from any thickening of deposits of fibrin, determine its congenital nature.

Gangrenous Lymphangitis of the Scrotum in the Newborn.—Two cases of gangrene of the scrotum are described by R. LACASSE (Gaz. Hebdom. de Méd. et de Chir., Feb. 16, 1902). In both of Lacasse's cases the infants were of normal birth and nourished with mother's milk. General or predisposing causes for the gangrene were lacking. In one instance a local point of infection probably existed at the umbilicus, where a suppurating wound existed for several days after the cord separated. The rapidity of the development of the gangrene is striking. In one case the first inflammatory symptoms were noticed on September 2d; on September 7th an extensive scrotal ulcer was present; in the second case the scrotum was almost entirely destroyed in ten days from the onset of the illness. The constitutional phenomena accompanying the local process were marked, but less pronounced than in erysipelas, with which the scrotal inflammation in its early stages might be confounded. Treatment must be prompt and radical. Broca uses the thermocautery and has reported several cases of recovery.

Infantile Cirrhosis.—Cirrhosis of the liver in a child would indicate that the child's tissues are senile in spite of youthful age. F. X. WALLS (Pediatrics, Mch. 15, 1902) finds it a very rare disease in children and in summing up the causes finds that alcohol is responsible for less than 20 per cent. of recorded cases, syphilis for about 10 per cent., and tuberculosis in a relatively frequent number. Hereditary syphilis has its seat of election in the liver, this organ becoming uniformly hard and flint-like. The gummatous form with secondary shrinking is rare. Heart disease and chronic sepsis are occasional predisposing factors. Thompson found cirrhosis to follow obliteration of the bile-ducts in the newborn. In cirrhosis the general development is retarded, the child small and puny for its age and emaciated. The symptoms are those of the disease in the adult. Venous stigmata on face or body are common. Chronic peritonitis has a similar symptomatology, but hepatic cirrhosis could be diagnosed if one can demonstrate a large liver, large spleen, icterus, sugillations of the skin, hemorrhages from mouth or intestinal tract, and free fluid in the peritoneal cavity. The course is rather rapid. Death results from toxemia, exhaustion, hemorrhage, or a terminal inflammation of serous membranes. Therapy is hopeless, though some good may be done by milk diet, Carlsbad water, and inunctions of gray salve.

Examination of Breast-Milk.—A method which can be employed in general practice and, although more easily done than a chemical analysis, serves an equal purpose, is recommended by FRIEDMANN (Deut. med. Woch., Jan. 23, 1902). It consists of determining by microscopical examination the number and character of the milk corpuscles. It is an advantage first to be-

come familiar with the normal conditions by repeated examinations of the milk from healthy mothers, those whose children are well and show no signs of rickets or glandular enlargements. The milk corpuscles can be divided as to size into three groups, large, small, and intermediate, of which the latter are most numerous. The small ones are also found in almost equal numbers, but the large ones are comparatively scarce, a magnification of 400 diameters, showing only about 10-20 in the field. If these be more numerous the milk is found to be too fatty and more difficult to digest. A preponderance of the small corpuscles usually means a chronic dyspepsia for the nursing infant. An accurate count can be made with some form of blood-counting apparatus, but the latter is not essential. The proximity of the corpuscles to each other also serves as a guide to the grade of the milk, the more sparsely distributed the globules and the greater the number of the small ones, the poorer the quality of the milk. The method also serves to differentiate the character of the milk from the two breasts. In the selection of wet-nurses it is obviously useful.

Epidemic of Uncertain Nature.—Eighty-two children at the New York Foundling Hospital were noticed by R. G. FREEMAN (Archives of Pediatrics, Feb., 1902) to become drowsy, lose appetite, and complain of headache. All of them had fever, two had marked chills, and two chilly sensations. Other symptoms were vomiting, abdominal pain and flushing of the face. None had enlarged spleen, loose bowels or the redness of the tongue and pharynx ordinarily associated with gastro-enteric disorder. After attention to the bowels, milk diet and rest in bed some of the children improved, but in none was there subsidence of the fever. The blood was studied for plasmodium in seven cases with negative results, but later a boy who had two chills three days apart was found to have plasmodium malariae in his blood. At once two grains of quinine, every three or four hours, was administered to all with complete subsidence of the temperature within twenty-four hours in most of the cases. Some were treated with two grains of quinine a day without amelioration, but with rapid recovery from six grains a day. In favor of a gastro-enteric condition were the coated tongues, headache, vomiting and constipation (in some cases); but against this were the absence of red tongues or pharynx, tympanites, dilated stomachs, or diarrhoea, and the fact that none of them recovered when the bowels were regulated. Many authorities report the marked susceptibility of children to malaria, and these cases resembled the early stage of experimental malaria before enlargement of spleen, presence of plasmodium, and the typical temperature.

PATHOLOGY AND BACTERIOLOGY.

Drugs and Immunity to Anthrax.—Certainly a very fertile field of research is that which will throw light on the effect of the administration of drugs in either increasing or counteracting the natural immunity of animals to the various infectious diseases. The discovery of drugs that increase immunity will be of paramount value in practical medicine. A contribution that indicates the future possibilities of this study, though not of immediate practical importance, is that furnished by Cadéac (Jour. de Phys. et de Path. Générale, Jan. 15, 1902). Experimenting with various drugs, he found that corrosive sublimate is the best agent to suppress the resistance or immunity of most dogs with respect to anthrax. The successive injection of strong doses of the virus, together with non-toxic doses of corrosive sublimate, increases the susceptibility of the dogs to anthrax to such an extent that the animals quickly succumb to the disease. Venous stasis produced by the

application of a ligature about the neck or to the extremities aggravates slightly the degree of infection, provided that the duration of the obstruction to the circulation does not exceed six hours. Prolonged constriction for eight or ten hours produces a local gangrene which is essentially preventive of the production of the disease by successive inoculation.

On Bacteriolysis and Hemolysis.—A critical review of the latest contributions to these subjects, as well as the valuable results of his own original researches, are presented by MAX GRUBER (Jour. of State Medicine, Jan. and Feb., 1902). The so-called "antibodies" known to exist in blood-sera are of value in the following practical applications: They are important in the neutralization of bacterial poisons; they are instrumental in the destruction of the bacteria themselves; they dissolve blood-corpuscles taken from another animal; they cause the coagulation of milk from another animal; they are employed in the treatment of plague, diphtheria and snake-bites; they cause the agglutination reaction; they enable one to discriminate between the various albumins; they are of value in the recognition of human blood-spots in criminal cases by means of the precipitation of specific albuminous bodies and the destruction of the red blood-corpuscles respectively. Of highest importance, therefore, is a knowledge of the properties of these "antibodies," and the conditions under which they exist. Normal blood-sera removed from animals have a marked bactericidal property. This they lose entirely if heated to 55° C., or even if kept for a few days. Normal sera have no specific bactericidal action; they manifest their antagonism against different kinds of susceptible bacteria to approximately the same degree. Only when sera are immunized do they act specifically against some particular bacterium. Fraenkel and Loberheim have recently shown that a serum which has lost its bactericidal power by standing or heating, when injected into an animal confers passive immunity, i. e., the blood of the animal exhibits the same specific bactericidal power as the immune serum when fresh. It has been supposed that the inactive serum contains a body known as "lysogen," which when injected into the living body is converted into a lysin, just as zymogen is converted into an enzyme, as is the case with the digestive ferments. There is a theory that active immune sera contain two bodies, lysogen and lysin. The latter is easily destroyed by standing and heating; when injected into the living body the former is transformed into lysin. Moreover, it is possible to bring about this same transformation *in vitro*, by adding a small quantity of fresh and in itself immune serum to the inactive serum in a test-tube, showing that the reaction is not necessarily a vital but purely a chemical one. Inactive sera are capable of producing the agglutination reaction. According to the author, this process is caused by the membranes of the bacteria and their flagella when present, becoming sticky. This results from certain constituents of the membranes uniting with certain substances of the sera, the so-called "agglutinates." That the membranes only are affected is shown by the fact that the agglutins do not at all hurt the bacteria, for these grow and multiply nearly to the same extent as they do if not agglutinated. Inactive immune sera can be used for diagnostic purposes in another way, namely, they can cause precipitation of a specific character in the clear filtrates of the relative bacteria. The bacteriolytic power of a serum is quantitatively limited, for only a definite number of bacteria can be destroyed by a definite serum, and serum which has once been used to destroy bacteria has lost its bactericidal property. An immune serum entirely loses its specific properties if left with a suf-

ficiently large number of the respective bacteria for a sufficient length of time; the specific immunizing substances and antibodies are apparently used up or locked during the reaction. According to Buchner, bacteriolysis is to be attributed to "alexins," which are very unstable bodies in the blood of immune animals. This theory is denied by Fisher and Von Baumgarten who hold that the death of bacteria is due to deficiencies of suitable food, osmotic changes, plasmolysis and plasmoptysis. Plasmoptysis is an excess of osmotic pressure inside the cell, causing an expulsion of its constituents. Von Baumgarten thought that osmosis causes killing of the bacteria by a change of salt concentration. The alexins are not to be reckoned among the digestive ferments; bacteriolysis and hemolysis are not enzymotic processes. The alexins have in common with the enzymes only these characteristics, namely, they are unstable and are easily destroyed by heat. The alexins differ from the enzymes in that the former are very sharply and closely limited in their action according to their quantity. Experiment forces the author to assume that the antibodies and alexins cause alterations in the membranes and supporting stroma of the different cells, in other words, alterations in the osmotic diaphragm by virtue of which the latter allows substances to pass through which it prevents doing in its normal state. The power of the blood of an animal to destroy red-blood cells, spermatozoa, leucocytes, epithelia, endothelia and nerve-cells of another animal, was shown by Buchner to be closely connected with bacteriolysis, for the former as well as the latter power is lost by allowing the serum to stand for a time or by heating it. The globulins also get used up just like the alexins. The complicated character of the conditions surrounding the action of the blood-serum is further shown by the fact that in an immunization of an animal by means of the bacterial injections, side by side with the specific substances which protect the animal, there are formed, although in small amount, substances which protect the bacteria themselves, the so-called "anti-alexins."

Eosinophile-Count in the Diagnosis of Human Blood.—The home of the eosinophile is probably in the bones or glands and its normal percentage with reference to the other leucocytes is from $\frac{1}{4}$ to 4 per cent. An increase in the percentage is found in diseases of the bone, skin and genito-urinary system, in parasitic conditions of the intestine, in malignant tumors, in asthma and after the use of certain drugs, such as camphor or antipyrin. The blood of animals has been said to contain a relative large number of these cells, but O. S. WIGHTMAN (N. Y. Med. Jour., Mch. 1, 1902) has recently examined specimens of blood from the horse, rat, rabbit, calf, goat and other animals and finds that the number of eosinophile leucocytes ranges from 1 to 8 per cent., and is in no way constantly high enough to be characteristic. These animals do have, however, a persistently high lymphocyte-count corresponding fairly well with the polynuclear count of human blood.

Placental Transplantation and Its Results.—The fact that the maternal blood circulates in the uterine sinuses in direct contact with the placental substance suggests the possibility that from time to time parts of the placenta may be carried away in such a manner that they themselves produce changes in the mother's blood, and that the blood of the fetus circulates directly with that of the mother. R. SCHOLTEN and J. VINT, (Ctblt. f. Gyn., Feb. 15, 1902), in order to determine whether such an accident might influence the mother, performed a number of experiments from which they deduced the following conclusions: The blood serum from rabbits in which from 5 to 10 grams of human placenta had been transplanted into the abdominal cavity

had no hemolytic influence on the human blood stronger than the blood serum of rabbits which had not been treated in the same way. The blood serum of pregnant women showed, as a rule, no hemolytic peculiarities upon the blood of men and of women who were either pregnant or not pregnant. Exceptionally without its being possible to fix the reason definitely there was a very slight hemolytic effect of the serum from the pregnant upon the blood of the non-pregnant woman. The serum of rabbits which had been treated with human placenta was not poisonous for other rabbits. The serum from two eclamptic women showed no hemolytic peculiarities for the blood of men or of women who were pregnant or not pregnant and was in large quantities not poisonous for rabbits. The urine of rabbits which had been treated with human placenta or rabbits' placenta showed after twenty-four or forty-eight hours a definite amount of albumin. Bits of human placenta which were laid directly in the fresh serum of rabbits which had been treated with the human placenta for twenty-four hours showed a marked effect upon the syncytium. This result was greater than was obtained from the bits of placenta which had laid in ordinary rabbits' serum.

Value of Stock's Reaction.—Recently A. Stock published a new reaction for acetone in urine, the chief advantage of which was that it was not influenced by alcohol, aldehyde or similar bodies. It necessitated the addition of 10-per-cent. hydroxylamin hydrochlorate solution and the same amount of 5-per-cent. caustic soda and pyridine to 10 cubic centimeters of the fluid to be examined, which should be neutral. A layer of ether is then allowed to flow in and sufficient bromine water is added to give the ether a distinct yellow color on shaking. If to the fluid there be now added one cubic centimeter of peroxide of hydrogen, the yellow color of the ether will turn blue in the presence of acetone. H. ZICKLER (*Präg. med. Woch.*, Mch. 6, 1902) finds that the test, while it possesses the advantage mentioned, is not sufficiently delicate to be of clinical value, for it is positive only with 0.02 grain of acetone in 10 cubic centimeters of urine.

Implantation of Tubercle Bacilli.—The conclusions which may be drawn from present knowledge of this subject are summarized by L. F. FLICK (*Phil. Med. Jour.*, Mch. 22, 1902) as follows: (1) The seed supply for new implantations of tuberculosis is derived almost entirely from human sources, especially the sputum of consumptives. (2) It can be derived from animal sources. (3) The tubercle bacillus enters a host through the lymphatic system in the alimentary canal, the respiratory tract, and the skin. (4) It is conveyed to its destination by the lymph- and blood-currents. (5) The place of deposit is no indication of the port of entry except when deposit has taken place in the bronchial or mesenteric lymphatic glands. (6) Interference with the circulation of a part, whether by traumatism, inflammation, or vasomotor disturbance, prepares the part for tuberculous deposit. (7) Germination and colonization do not always follow tuberculous deposit.

Increase of Cancer in Germany.—A statistical study which ought to prove of interest when compared with like conditions in this country has been made by WUTZDORFF (*Deut. med. Woch.*, Mch. 6, 1902). He finds on investigation of the vital statistics of the Empire, a marked general increase during the years 1892-1898 of deaths from malignant new growths. In fact, the increase in the number of cancer cases has been greater in proportion than the rate of growth of the population. That cancer is associated with middle or advancing life only is not borne out by these figures, which indicate an earlier involvement than was for-

merly known. Women appear to be the subject of cancerous diseases more often than men, but the increase in the number affected seems to advance more rapidly among the latter than in the former.

Parasites of Carcinoma and Sarcoma.—Whatever the attitude of the profession may be, however hostile or inimical to this much-discussed theory, no one can read the article by MAX SCHÜLLER (*Ctbl. f. Chirurgie*, Feb. 22, 1902) without being amused. He is concerned, as, indeed, are most of the gentlemen who sponsor the parasitic theory of these neoplasms, rather with an inference of previously uttered virus than with the presentation of facts which should disarm his opponents. In his recent work, entitled "Parasites in Carcinoma and Sarcoma of Man," he described certain "giant capsules and meshwork" which were pictured as probable varieties in the life-cycle of the parasite. From Heidelberg arose the cry that these cells were nothing more or less than cork cells which had crept unawares into the cultures. Inasmuch, however, as all bottles were closed with rubber or glass stoppers it is not possible that this contamination could have occurred. It is, however, interesting to note the strange resemblance between certain phases of the parasite and cork cells. A close study of microphotographs will, however, show a considerable morphological variation and there exists a chemical reaction in the one which is absent in the other. These "great capsules" are by no means the direct cause of cancer. They are a sort of nidus for the round or oval bodies which develop within them, and finally burst out, leaving the capsule free to fall easily from the preparation. At once these oval bodies find their way between the cells, or into them, and produce the well-known malignant forms. As they grow there is either a development into "great capsules" or a reproduction by division. Stained with a preparation of thionin, no one could possibly confuse these young organisms with plasma cells, for which Ribbert has suggested they might be mistaken; they are easily traced, not alone into the cells, but along the so-called invasion paths of the neoplasm. The proposition of Nils Sjöberg that the so-called young forms were merely leucin particles has been disproved by Clewes of the Buffalo Cancer Laboratory, as well as by the author, who has not alone seen distinct motions and contractions in them, but has studied their relation to alcohol, heat and other factors. There is but one conclusion possible, viz., that the bodies are living and that they are the direct cause of neoplastic growth.

A New Trypanosoma.—Diseases among cattle have a definite relation to public health. D. BRUCE (*Lancet*, Mch. 8, 1902) reports a new species of trypanosoma discovered in South Africa. This new species can be distinguished from the trypanosoma of surra, of tse-tse fly disease or of the rat by its large size, which is almost double that of any of the others. In general appearance it conforms closely to them in possessing an oval protoplasmic body, a longitudinal finlike membrane and a single flagellum. This new trypanosoma was lately discovered at Pretoria by A. Theiler, who found that it infects only cattle, while horses, dogs, goats, rabbits and guinea-pigs are immune, showing neither symptoms nor the parasites in the blood. Calves, on the other hand, were easily affected, showing fever and numbers of the parasites in the blood. He first found it in the blood of a young ox just recovered from rinderpest. Among cattle the disease seems to be an acute, pernicious anemia, with grave blood changes, general anemia without deformation of the elements of the blood, or lastly only a slight fever. There exists a natural immunity in cattle against this disease. He is of the opinion that this disease is the same as that attributed by Kolle to bovine malaria. Kolle overlooked

the trypanosoma, saw that the disease was infectious and observed endoglobular parasites and pigment in the red blood-cells. The name proposed by Bruce for this interesting organism is in honor of its discoverer, Trypanosoma Theileri.

The Nature of Streptococcus Toxin.—An additional contribution to the study of the toxins of streptococci is made by A. MARMOREK (Berl. klin. Woch., Mch. 24, 1902). Marmorek's studies make it appear that all varieties of streptococci produce essentially the same toxin. The latter belongs to the group of diastases which are decomposed by a temperature of 70° F. A serum which affords protection against the toxins of every variety of streptococcus can be developed in animals with the aid of a single streptococcus culture. In the course of his investigations Marmorek produced a toxin which in doses of 0.25 cubic centimeters proved fatal to puppies.

The Etiology of Carcinoma.—A new contribution to the theories which have been formulated regarding the causes of cancerous growths, is advanced by FERNANDEZ (Deut. med. Woch., Mch. 13, 1902). A histological examination of carcinomata in an early stage of growth shows the presence of three classes of cellular elements: (1) Polymorphous cells, containing nuclei of varying sizes and shapes; (2) cells with distinct karyokinetic figures; (3) independent of these, certain vacuoles which even with intense staining seem to be entirely empty. The author believes that the latter are specialized organisms and independent of the system. Their characteristic elements are a double enclosing membrane which is stained deeply by orange G, a nucleolus staining readily and surrounded by a clear, unstained zone, and the latter enclosed in a lightly stained plasma with faint radiations. These properties seem to fix the structures as unicellular organisms, probably belonging to the Sporozoa. They were demonstrated in six cases of carcinoma, three of the breast, two of the intestinal canal, one of the rectum, and attention is directed to the necessity of securing fresh material from early cases. The author suggests, moreover, that the vacuolar condition as found is merely an encysted form of the organism, a protection against the onslaughts of the normal cells. The tumor can be considered the result of cell changes and multiplication brought on by the irritant influence of the intruding organism. It may also be feasible to employ this means of identification in the diagnosis of early and doubtful cases of carcinoma.

Generalized Cutaneous Melanotic Tumors.—In May, 1898, a sarcoma was removed from a man's subhyoid region; to the naked eye, it appeared free from pigment; it was not examined microscopically. A few pigmented spots were at this time observed on the skin, but nothing was thought of them. In November, 1900, the skin presented numerous black sarcomatous nodules and a large melanotic sarcoma was removed from the subhyoid region. In August, 1901, he entered a hospital and remained under the observation of E. SERGENT (Archives générales de Médecine, Feb., 1902) for three months. He was well nourished, looked the picture of health, and had no visceral manifestations. His skin bore innumerable pigmented nodules in every region and new nodules appeared every day. They varied from the size of a pin-head to that of a small nut, the fully-developed superficial nodules being black as ink, while the deeper nodules, owing to the overlying layers of skin, were gray or blue. They were all sessile with broad base, and mostly looked like a split pea. Some were surrounded by a zone of inflammation, and others were ulcerated and exuded more or less pigmented or bloody liquid. There were some pigmented cicatrices from healed ulcerated nodules. The evolution of the

nodules as observed was as follows: A slight elevation of the skin was followed by thinning of the epidermis and the appearance of a gray coloration. This spread rapidly and soon became a deep black hemispheric nodule covered with a thin lamella of epidermis. Sooner or later its growth stopped, and it either remained stationary or without any sign of inflammation rapidly disappeared, leaving a permanent pigmented area, or became surrounded by an inflammatory zone, ulcerated, broke down, and was replaced by a slowly-fading pigmented cicatrix. The blood of this man showed a moderate diminution in the number of red cells, a normal number of leucocytes with a slightly increased proportion of polynuclears, and large, poorly-stained, vacuolated white cells with pale nucleus, showing plasmolysis and karyolysis. Such cells are often found in septicemic states. In the fresh specimen refractile pigment granules were seen in the leucocytes, and in a few of the erythrocytes, but in the stained specimen pigment could not be detected. There was no melanuria. The pigment was non-ferruginous, and appeared to be generated directly by the cells of which it forms an integral part. Melanotic sarcoma usually arises from the eye or the skin, but occasionally from a lymph-node. The distinction from carcinoma is often obscure. Melanemia would indicate a generalized involvement, in which case surgical intervention would be of little use. The absence of melanemia, however, is not proof of non-generalization.

The Pancreas and Tuberculosis.—The lesions produced by the action of the tubercle bacillus upon the pancreas and the influence of the latter upon the bacillus have been studied by F. E. ITALIA (La Riforma Medica, Mch. 8, 9, and 10, 1902). Through inoculation of animals with tuberculous material it was found that the pancreas reacts to the toxins of the tubercle bacillus by hyperplasia of the connective tissue, with subsequent contraction of the organ. The fact that the bacillus was not found in a number of pancreatic specimens infected with tuberculosis led to the belief that the cells and their secretion had a specific action against the bacillus. To determine the truth of this theory and the possible value of pancreatic infusions in the therapeutics of tuberculosis, a further series of experiments was carried out, with the following findings: (1) Through the simultaneous inoculation of tuberculous material and pancreatic infusion in guinea-pigs and rabbits, it has been demonstrated that the latter has an inhibitory influence upon the development of the tubercle bacillus as demonstrated by control experiments with the tuberculous material alone. (2) If the tuberculous infection be already generalized, pancreatic infusion has no effect. (3) If the experimental specific lesion be still localized, pancreatic infusion is curative in its effect upon the specific focus, and excites to a marked degree migration of phagocytes. (4) If concentrated infusions be used, there is pronounced reaction of the tissues at the site of injection with tendency to sclerosis; from dilute solutions, reaction is slight or absent. (5) Small doses induce increase in body-weight; frequent and large doses cause emaciation. (6) A 2-per-cent. watery solution of pancreatin is more rapid and active in effect than pancreatic infusion. (7) Trypsin causes enormous destruction of tissue at the site of inoculation and, in large doses, death through paralysis of the nervous centers. A limited experience in the administration of pancreatic infusion to human subjects showed less favorable results than in the animal experiments.

NEUROLOGY AND PSYCHIATRY.

Ascending Neuritis and Syringomyelia.—From the standpoint of pathology syringomyelia may be the result of a variety of factors. Among the possible

causes is infection following the route of the peripheral nerves. Clinical facts and experiments support the belief that microbes or toxins can reach the spinal cord by this route. A case of syringomyelia following an ascending neuritis is described by P. MARIE and P. GUILLAIN (*La Presse Méd.*, Feb., 1902). The patient manifested symptoms of an ascending neuritis for a number of years, the trouble dating from the occurrence of a phlegmon of the hand. Symptoms of syringomyelia supervened.

Gray Hair and Emotion.—Cases of hair turning gray in a night are said to occur, but it is uncommon to meet with well-authenticated cases. R. JONES (*Lancet*, Mch. 1, 1902) gives the details of the following case in an insane asylum. The man was thin, sparsely built, fifty-three years old, five feet eight inches in height, one hundred and forty pounds in weight, clear-complexioned, blue-eyed, intelligent, thoughtful, reserved and a paranoiac. For two or three months before admission he had given way to drink on account of worry and overstrain over his work. His delusions were well marked and rather active. His suspicions were directed against his family and his tendency was both murderous and suicidal. He became violent, noisy, abusive, aggressive, and had to be drugged for his own and his attendants' safety. Upon admission his hair was of dark color, both on the scalp and face. Within the short period of five weeks, it changed first to a gray and then very rapidly to a distinct white. There was no history in his family of any insanity, immediate or remote. The microscopical examination of the hair showed freedom of pigment deposits, and a silvery appearance, thinness of the cuticle, atrophy of the fibrous layer, infiltration with minute air bubbles in the distal third of the hair, and to a less marked degree in the middle third. The medullary portion was smaller and more varicose than usual. The bulbs were small, atrophic, and almost entirely free from the adherent root sheath.

Vasectomy to Prevent Transmission of Insanity and Crime.—In 1850 there was one criminal to each 3,442 of the population, while in 1890 there was one criminal to each 957 of the population. "The law of heredity has been recognized as a most potent force in the development of life as long as history has been written." Among the less civilized, perhaps, strenuous laws have been enacted to prevent the propagation of children by those who were mentally or physically weakened, but sentiment, at the present time, rebels against any attempt to interfere with individual liberty and enjoyment. The astounding increase in crime must, however, soon arouse the people to a sensible discussion of this problem. H. C. SHARP (*N. Y. Med. Jour.*, Mch. 8, 1902) believes that castration will never be a popular method to render these unfortunates sterile, for the operation must not in itself be a punishment to the individual—it must not result in a deformity, neither must it interfere with his enjoyment of life. Castration, furthermore, has a very depressing effect. Severance of the vasa deferentia, however, has been found to be a most efficient means of causing sterility without in any way destroying the sexual power. The author has performed this operation in forty-two cases and is prepared to state positively that it does not impair the sexual power, but that the patient improves mentally and physically, increases in weight and his will power becomes stronger. Lately he has been following the English method of operating, which selects the scrotal region as the site of operation. The vas is clasped between the thumb and index finger, a longitudinal incision is made about three-eighths of an inch in length and the vas is severed. The scrotal wound is not closed. It is strongly urged that this is a method

by which a dangerous and hurtful class may be largely diminished in numbers and the race mentally and bodily improved.

Myasthenia Gravis.—This rare nervous affection depends upon several factors. In the following case diabetes appears to have been a very important element, as noted by C. A. HINGSTON and W. H. B. STODDART (*Lancet*, Mch. 15, 1902). The patient was seventy-one years old; a contractor of considerable mental and physical activity, with good health; at sixty years of age retired because easily excited and fatigued and obviously decreased in capacity for business; at sixty-three suffered from neuralgic pains in various parts of his body and limbs; finally from neuralgia limited to the left leg and severe enough to confine him to bed for weeks. The urine at this time was of high specific gravity and rich in sugar, which disappeared under appropriate dietary treatment; for a year before death albumin appeared in the urine and persisted; energy and strength decreased, but no local symptoms appeared until the last seven weeks when he relaxed his diabetic diet and then steadily failed through gradually increased muscular weakness without malaise. He showed the following symptoms: Exhaustion even during dressing; progressive inability to walk; slight bilateral ptosis, increased by reading; dysphagia first for solids, then semisolids and finally liquids, which frequently regurgitated through his nose. Upon examination he appeared well nourished and, when sitting down, in good health except for the ptosis; showed fair coordination, with exhaustion as soon as any movement was repeated a number of times; no atrophy; no loss of electrical irritability; no decrease in sensation; no tremors and no involuntary movements of any kind; normal abdominal and plantar reflexes; exaggerated knee-jerk which exhausted itself on repetition, but not to the point of absolute loss; no ankle-clonus; no ocular palsy; some nystagmus on lateral deviation; no diplopia; bilateral ptosis sufficient to cover half the pupils and increased by reading; normal activity of pupils to light and coordination; normal conjunctival reflexes; no weakness of the muscles of mastication or of the face; full strength of voice after rest but aphonia after a few minutes' conversation; total dysphagia for solids, regurgitation of fluids through the nose at the end of a meal, absence of the pharyngeal reflex; heart and lungs normal except a louder, increased second sound at the aortic valve; arteries normal for old age; full control of bladder and rectum; moderate amount of sugar and albumin in the urine. Death occurred about two weeks later. Unfortunately there was no autopsy but there appears little doubt that the disease was myasthenia gravis or asthenic bulbar paralysis. The unusual features are the patient's age, the acute course of the process and its association with diabetes. All cases previously reported place the age between thirty and forty as usual for the disease. Erb has reported one in a patient fifty-five years old. The only undoubted case of more acute course lived only fourteen days and is recorded by Widal and Marinesco. The influence of diabetes appears to have been great because the severe symptoms appeared as soon as he relaxed his diet. This observation is in favor of the prevalent view that the disease is due to some toxin in the blood affecting the peripheral nerves.

Pathology of Disseminated Sclerosis.—The textbooks furnish a large number of theories as to the nature of disseminated sclerosis, but no adequate explanation of its causation has yet been given. Charcot describes this condition as a "primary and multilocal chronic interstitial myelitis or encephalitis." Rundfleisch and Marie consider it "of vascular origin, the changes in the blood-vessels being the primary lesion." Adam-

kiewitz believes it is a primary parenchymatous change due to a toxin," while Strümpell maintains that it is a multiple gliosis. According to A. F. Shoyer, (Jour. of Path. and Bact., Mch., 1902) the distribution of the lesions of disseminated sclerosis can be explained by the assumption that they are caused by a poisonous agent conveyed by the cerebrospinal fluid, which finds entry along the fissure from the central canal and ventricles and along the nerve-roots, also at a point in each lateral margin of the cord. From the examination of sections of the spinal cord of two cases, and also from the illustrations in connection with published cases, the author finds a marked resemblance in the arrangement of the lesions. There are five primary forms of patches related to the following localities, namely, the posterior fissure, the anterior fissure, the central canal, the points of entry and exit of the nerve-roots, and a point in each lateral margin of the cord. Pierre Marie suggests an infectious origin for this condition, typhoid fever being the causative factor in the majority of cases; in twenty-seven cases there was a history of typhoid in eleven. Among the other causes are pneumonia, malaria and the eruptive fevers, especially smallpox. Marie concludes that the condition is a combined infection due to pathogenic organisms which have made their way into the nervous tissues. This theory is improbable, for fresh patches are being continually found, and old ones continue to spread during many years. The condition, according to Shayer, is probably to be attributed to the action of a toxin due to the perverted metabolism of nervous tissues, which toxin is analogous to cholin or neurin, which has been shown by Mott and Halliburton to be produced in the condition of general paralysis.

Paresis.—From a study of one hundred and forty-nine cases occurring at the Philadelphia Hospital, Wm. PICKETT (Phil. Med. Jour., Mch. 29, 1902) deduces some interesting clinical and diagnostic features. The old idea that the delusion of grandeur is the essential symptom of paresis seem contravened by these figures, which show that paresis without delusion is extremely common (44 per cent. of the series). As a matter of diagnosis the author believes that the forms of insanity most often confused with paresis of the simple form are (1) the so-called organic dementias, chiefly those due to embolism, thrombosis, hemorrhage; (2) pre-senility; (3) dementia præcox; (4) even epilepsy and alcoholic insanity. The prevalence of alcoholism among these patients demands more recognition than was formerly ascribed to it as an etiological factor, and the hasty acceptance of syphilis as the *sine qua non* of paresis needs reservation. As regards the so-called "crucial tests" of true paresis, the author's figures bear out the statement that any abnormality of the pupils not accounted for by a local lesion may serve as a sign of paresis. The consensual reflex was found as an independent sign in only a small number of cases. Attention is also directed to the confirmatory value of the paralytic attacks, the apoplectic form occurring more commonly early in the course of paresis, the epileptiform prevailing later. After these points come, in order of scientific value for diagnosis, (1) tremors of face, lips and tongue, with resultant hesitancy of speech, and (2) impairment of consciousness and of judgment.

Adiposis Dolorosa.—A report of a patient affected to this condition is presented by D. PARI (Gazz. degli Osped., Mch. 9, 1902). Syphilis, rheumatism, trauma, considered by some as influential in the causation of the disease, were absent, previous mental distress alone suggesting its origin. The usual symptoms, increased fatty deposits in successive points accompanied by pain, were observed; an unusual feature, however, was the occurrence of the affection in the

face, this together with the hands and feet being usually exempt. A diet of eggs, vegetables and milk, with iodide treatment followed by administration of thyroid extract brought about a cure.

Local Disease as a Cause of Neurasthenia.—The neurasthenic patient is oftentimes made the victim of a specialist who believes that a cure should immediately follow the relief from trouble in his line of work without fully recognizing the important relations between a local cause and the mental equilibrium of the patient. It is natural that any specialist should attach too much importance to his own specialty, believing that the causes of the trouble center around those particular maladies. F. COGGESHALL (N. Y. Med. Jour., Mch. 29, 1902) believes that the neurasthenic diathesis may be either inherited or acquired as the result of overtaxing the nervous system by any kind of severe and prolonged strain. For one who has the diathesis a strain may be severe which would not be felt by a normal person. Some give out merely from the wear and tear of ordinary life; others, who could bear the conditions of average lives, break down under the strain of trying occupations; still others reach the point where the addition of a slight but constant irritation resulting from some physical defect proves too great for the nervous system to endure. Some of the more common causes of irritation are dysmenorrhea, dyspareunia, astigmatism, spurs in the nose, an adherent prepuce or adherent clitoris or even an unerupted third molar. He therefore divides neurasthenia, like anemia, into primary and secondary cases and first makes a careful search to find evidence of an hereditary tendency to determine the likelihood of benefit from the removal of extra fatigue. He then searches for sources of removable strain and removes these local irritations as completely as possible. Lastly, one should never rest satisfied with the local treatment but should build up the nervous system, depending upon drugs and more especially upon massage, gymnastics, hydrotherapy, some electricity, a great deal of informal suggestion and in some cases hypnotism.

Education of Epileptics.—These unfortunates were up to a few years ago, even in highly civilized nations, helpless and virtually outcast. The Craig Colony at Sonyea, N. Y., has been an important factor in teaching us how to advance their interests. In Great Britain twelve years ago a similar home for epileptics was started at Maghull. A brief note of the work of the home is given by W. ALEXANDER (Lancet, Mch. 22, 1902). He calls the home the first step in improving the position and comfort of epileptics. Prior to its establishment, epileptics, if they were poor, were confined in the imbecile wards of the workhouse; if rich, they were looked after by relatives or attendants or taken as boarders by people of various classes of life, who for pay undertook this trouble and responsibility without being always qualified. Poor epileptics who were not sent to the workhouse were often miserable in the extreme, a source of constant anxiety and dread to their relatives and hence frequently confined in their homes and denied all liberty and many necessarily became stupid or insane. In spite of all precautions of relatives and attendants fatal accidents were frequent and often these were considered special acts of Providence for the relief of all concerned. In the workhouse these patients were herded with the least harmful insane without any effort toward instruction, employment or amusement. The primary objects of the Maghull Colony were to keep epileptics safe, occupied, trained in body and mind and to allow them all possible liberty. Unexpected success has followed this venture. The chief obstacle encountered has been the defective education of the inmates as admitted. The old doctrine

among medical men that epileptics must not be bothered led to a total neglect of any steps toward their physical, mental and moral training. The products of such a policy are the adult epileptics of the present day and are very hard to deal with. Another source of ignorance among epileptics is the fact that when the disease appears in later life often all early education will be forgotten and the individual must be trained anew from the start. Again, epileptics are often unevenly balanced so that certain faculties, like the musical, imitative and introspective, are unusually acute, while others are obtuse. They divide the education of the patients into two classes, those of the ordinary school age and those of adult life with originally defective or lost education or training. They find that, on the whole, such subjects acquire with tolerable satisfaction the simple branches, namely, reading, writing, arithmetic, wood-carving, joinery and simple technical arts. The teaching of these unfortunates must necessarily be under the watchful eye of competent physicians; but with such at hand, they find at Maghull considerable success in giving to these wretched beings something to think about and to live for.

SKIN AND GENITO-URINARY.

Urinary Fever.—By this term is meant the elevation of temperature and accompanying symptoms evoked by the passage of a sound or catheter, by operations or other impressions made upon the lower urinary tract, the kidneys and urinary organs being free from disease. G. L. HARBOUR (Med. Times, Mch., 1902) says that the simple passage of a catheter may cause symptoms and results of all grades from a mere faintness, recovered from in a few minutes, to a violent chill, followed by a temperature of 103 to 105° F., accompanied by suppression of urine and convulsions, sometimes terminating in death in from six to forty-eight hours. The nervous connections with the genito-urinary tract are so peculiarly constructed, that, if a local irritation be at all pronounced, the most widespread nervous storm may prevail over the entire sympathetic and cerebro-spinal systems and involve the cardiac, pulmonary and renal circulation to such an extent as to induce syncope, acute renal congestion and finally even convulsions and death. The urine is very much diminished usually, suppression lasting from one to three days in very severe cases. In regard to the differential features distinguishing urinary fever from pyelonephritis, the former is marked by the sudden onset with a brief and rapid duration of the fever, by the history of the case, in regard to the kidneys, bladder and lower urinary tract as to whether previously in a healthy condition. From uremia it is more difficult to make the distinction as suppression may occur for several days, thus poisoning the blood from uneliminated waste products, terminating in death, at least, in part from uremia. The absence of coma and convulsions, etc., excludes uremia.

Defect of Penis.—The case of a boy, seventeen years of age, whose penis is undeveloped and has an unyielding fibrous cord where the corpus spongiosum ought to be, is reported by A. M. VANCE (Pediatrics, Mch. 15, 1902). The urethra is of good size. During erection the glands does not become enlarged, but the penis shows the typical appearance of chordee and the suffering is intense.

Relief of Acute Retention Due to Prostatic Enlargement.—The beginning of much trouble both for the physician and the patient frequently dates from the time when an attempt is made to relieve an acute retention. Believing that the obstruction is due to a rigid obstacle a metallic catheter is often used with serious results. W. T. BELFIELD (Therapeutic Gazette, Mch., 1902) explains that the obstruction is due to an edema

which offers only slight resistance to the passage of an instrument. It is best to begin with a flexible gum or silk catheter or a Mercier catheter which is especially adapted to the cases, for the beak turns up on the end, avoiding any false passages which may be present on the posterior wall of the urethra. A No. 15 (English) or a larger instrument is more apt to pass than a smaller one, because less spasm is excited. Gentleness must always be observed. If there be a partial stricture or if there be many false passages a metallic catheter of good size and with a long curve may be used, but it should be guided by the finger in the rectum. Under no circumstances should it be forced after it enters the prostatic urethra, for an obstacle requiring force to overcome it lies outside the urethral lumen and should be avoided, not attacked. If no instrument can be made to enter the bladder a suprapubic puncture should be made and this is preferably done with a small trocar and cannula. Through the latter a small Nélaton catheter is passed deeply into the bladder, the cannula withdrawn, and the catheter fixed by adhesive straps. It is understood that urotropin or cystogen should be administered at once in all cases of acute retention and continued till the danger of pus infection in the urinary tract has passed.

Drainage of the Bladder by the Immobilized Urethral Catheter.—Notwithstanding the vigorous opposition of Poncet and others to the drainage of the bladder by means of the urethrovessel immobilized catheter (*sonde à demeure*, H. BERTHIER (Gaz. heb. de Méd. et de Chir., Mch. 23, 1902) maintains that the clinical results obtained by this simple device are equal and at times superior to those following cystostomy. The general indication for vesical drainage is retention and stagnation, whether due to prostatic enlargement or to urethral stricture. The real or supposed disadvantages of the immobilized catheter are of two kinds—mechanical and infectious. Practically the drainage obtained by a large rubber catheter with frequent irrigation suffices, although it may not be perfect. On the other hand, the drainage in cystostomy is not perfect either; numerous instances are recorded of the formation of secondary calculi when cystostomy had been performed. The alleged painfulness of the *sonde à demeure* is not borne out by clinical facts. There is practically no pain after the first few hours. While the care of the catheter demands regular attention, an intelligent and not too infirm patient can easily see to the matter himself; others are obliged to have recourse to a physician every five or six days. With due precautions it is easy enough to avoid infection of the bladder. The precautions, must, however, be strictly observed. The indications for cystostomy may be thus formulated: (a) When catheterization is impossible, which is rare among prostatites, less rare in cases of stricture; (b) in certain forms of painful cystitis with pronounced vesical sclerosis; (c) in grave vesical or prostatic hemorrhage; (d) when lithotripsy cannot be practised in cases of infected bladder containing many small calculi or a single large and hard calculus; (e) in subacute infections which the immobilized catheter has failed to relieve.

Litholapaxy under Cocaine.—A procedure for which many advantages may be claimed has been carried out by G. K. SWINBURNE (Jour. Cutan. and G.-U. Dis., April, 1902) in a man, aged sixty-two years, with two large vesical calculi. A preliminary treatment was first instituted consisting of the administration of urotropin, grs. 7½, t.i.d. for three weeks, with bladder irrigation twice a week and passage of the usual instruments. For the operation, six drams of a 2-per-cent. solution of cocaine were injected by soft catheter through the posterior urethra into the bladder and a

small amount into the anterior urethra. By the aid of a Keyes lithotrite one calculus was crushed and the fragments were removed with the Chismore evacuating bottle. Operation lasted three-quarters of an hour and the patient walked home; no reaction followed. A month later the other stone was removed with equally good results. Twice during the next year small amounts of gravel were evacuated, but otherwise there is freedom from all symptoms. Patient did not have to remain in bed and has a bladder free from scar, which would have followed a cutting operation.

Blastomycetic Dermatitis.—Two cases of this interesting disease are reported by F. J. SHEPHERD (Jour. Cutan. and G.-U. Dis., April, 1902) which were successfully treated by potassium iodide. Both patients were males, aged thirty-eight and seventy-two years respectively. The lesions in each case were on the face. Diagnosis was confirmed by finding the budding yeast forms in the tissues. Curettage and cauterization of the affected surface were without result, but improvement was noted in a week after beginning the iodide treatment, the dosage varying from grs. 20-60 t.i.d. Another case is reported by WALKER and MONTGOMERY (Jour. Amer. Med. Assoc., Apr. 5, 1902) which is of interest as being the only instance recorded in which an undoubted cutaneous blastomycosis has been followed by a systemic infection with blastomycetes, seven years after the beginning of the lesion on the back and face. Death was diagnosed as due to miliary tuberculosis secondary to the cutaneous lesion. Microscopical examination of the lung tissue, however, showed the characteristic organisms, which seemed to have caused inflammatory changes comparable to those found in pulmonary tuberculosis. During the progress of the disease no remedy had been of any benefit.

The Anatomic Factor in Baldness.—If the term "scalp" be restricted to the soft parts which cover the vault of the cranium above the level of the temporal ridges and the superior curved line of the occipital bone, it remains a striking fact that this area corresponds quite closely with the limits of ordinary baldness. ELIOTT (Jour. Amer. Med. Assoc., Mch. 29, 1902) believes that the anatomical factor largely influences this condition and calls attention to the fact that wherever, as in the palms and soles, there is an intimate connection between the skin and underlying fascia, hair is absent. The skin of the scalp, moreover, has no underlying muscles to exercise it and although the scalp is very vascular there is little to aid the return flow. The lymphatic and venous circulation is also largely obstructed by the pressure of the hat. The indications for treatment therefore point to regulated massage before the absorption of the underlying fat and atrophy of the occipito-frontalis muscle—that is during early life.

Herpes Zoster.—A severe case of the ophthalmic variety of this eruption is reported by W. S. DURAND (Phil. Med. Jour., Mch. 29, 1902) which is of interest because of the treatment used. The lesion involved one eye and the corresponding side of forehead, with extreme pain in the area of distribution of the left cervical plexus and closure of the eye. Several drops of a solution of adrenalin chloride, 1-1000, in normal salt solution, with 0.5-per-cent. chloroform were instilled into the eye at minute intervals, and caused an immediate obliteration of the swelling and abatement of the pain. The instillations, together with swabbing of the entire eruptions, t.i.d., brought about a subsidence of the lesion in ten days, together with a gradual limitation of the painful area. Internally, Fowler's solution, digestive and laxative tonics were also administered.

Prostatectomy Forceps.—In the enucleation of the prostate gland considerable difficulty is sometimes

experienced in holding the lobes in place so that pressure may be successfully made. R. GUTÉRAS (N. Y. Med. Jour., Mch. 29, 1902) has had made for this purpose an instrument which resembles the ordinary tongue forceps. The blades are oval, fenestrated in the center, smooth on the outside and serrated on the inside, about three-quarters of an inch wide and an inch long. The enucleating finger can therefore easily work around the forceps which holds the lobe without any interference. The handles are the same as used in any similar instrument with the exception that this has eight "catches" in its lock, thus allowing any degree of pressure. In operating he first does a perineal urethrotomy; then he dilates the prostatic urethra by means of a Kollman dilator, afterward using his finger and perhaps his thumb. After inserting the forefinger into the rectum and placing it at the apex of the prostate, a thin pair of sharp-pointed scissors are passed into the incision till their points come in contact with the prostatic urethra, when the floor is either cut through or the points of the scissors are passed through the mucosa and capsule and the blades opened so that the tissue is torn. The forefinger of one hand is now easily inserted into this space and, having made a few sweeps with the finger around the apex of the gland, the forceps can be pushed up alongside the finger and can grasp the lobe, holding it in position while the forefinger completes the separation of the gland from its capsule.

Treatment of Hydrocele.—Although the radical operation of Von Bergmann may be necessary in some instances, the majority of cases of hydrocele can undoubtedly be cured by a careful use of the injection method, and although there is a difference of opinion in regard to the relative efficacy of tincture of iodine and carbolic acid, the latter seems to give the more certain results. On account of the ill-effects frequently resulting from the use of large doses of carbolic acid, W. B. COLEY and P. A. SATTERWHITE (N. Y. Med. Jour., Mch. 29, 1902) report a series of cases in which they have used only two-and-a-half or three-minim injections of carbolic acid and have obtained excellent results. It is necessary, however, that great care be taken to thoroughly squeeze out all the fluid before the acid is injected. Furthermore, Schering's carbolic-acid crystals should be used to insure purity and these may be dissolved in just enough glycerin to liquefy the crystals. A double cannula instrument is employed so that after the fluid has been removed the smaller cannula, screwed on to a syringe full of carbolic acid, may be inserted into the larger cannula and the necessary solution injected. Practically no risk is thus taken and the percentage of cases is at least seventy-five per cent. if the details be carefully followed.

Poisoning from "Flash-lights."—The danger arising from the use of photographic flash-lights has called forth a communication from A. GRAEFE (Deut. med. Woch., Mch. 13, 1902). The magnesium oxide ordinarily used is not dangerous, but when combined, as found by the writer, with chlorate of potash, its ignition produces the extremely poisonous chlorine gases. In the reported case the patient after burning the "flash" was found unconscious; the condition lasted several hours and was succeeded by severe and continued vomiting. Later on came headache, depressed pulse, numbness in extremities, severe bronchitis, and impairment of vision (midriasis, a clouding of the lens, paralysis of accommodation and of the external recti). Recovery was very slow.

OBSTETRICS AND GYNECOLOGY.

Cancer of the Uterus.—Careful consideration of well-prepared histories and conservatively drawn conclusions therefrom are always interesting. E. WESTERN

(Ctblt. f. Gyn., 1902, No. 10) reports three series of thirty cases each of cancer of the uterus and states that he is of the opinion that it is an error to remove only the lymphatic glands at the time of operation. It is exceedingly necessary to take away as much of the parametrium as possible. For this purpose the vaginal operation does not give the same opportunities as does the abdominal, which affords a better field to the vision and a much more easy approach for the operator. The permanent results probably rest upon the thoroughness with which these features of the work are carried out. It must be admitted that mere removal of the lymphatic glands aids in the permanence of the result. If, however, statistics were prepared with relation to the single point of relapses among the lymphatic glands it would probably be found that quite a large number of cases show no secondary deposits in the lymphatic glands as late as two, two and one-half or even three years after the operation.

Traumatic Granuloma of the Bladder.—Neoplasms of traumatic origin both benign and malign are always worthy of attention, especially when they affect such active viscera as the bladder. G. KOLISCHER (Ctblt. f. Gyn., 1902, No. 10) reports several cases in which granuloma appeared in the bladder of women after injury. His final conclusions are as follows: These tumors are without doubt usually caused by a single severe or a continuous more or less severe injury of the mucous membrane of the bladder. The increase and persistence of these granulomata are probably brought about by the fact that at the time of the injury there was already present an altered condition of the wall of the bladder which acted to prevent a straightforward and easy healing. It is also necessary to notice that it is not sufficient as a rule in order to cure these granulomata simply to remove the inflammation of the bladder commonly present, but that it is much more necessary to extirpate the granuloma by an operation. It seems that this procedure can be done with surety through a cystoscope. A good means of avoiding the bleeding which is essential to such an operation through this small instrument consists in applying a solution of adrenal extract. As a rule, the results of such operations are permanent.

THERAPEUTICS.

Treatment of Malaria.—In the very severe and in the very tenacious forms of malaria it is well known that quinine and the allied alkaloids have but slight action and that arsenic is uncertain and variable in its effects. A. GAUTIER (Rev. de Thérap., Mch. 1, 1902) has given the name arrhenal to an organic arsenic preparation, the disodium methylarsenate, which is closely allied to the cacodylates and which surpasses in action even large doses of quinine. The dose is 0.05-0.1 gram by hypodermic injection when prompt action is desired. By systematic blood-counts it was also found that the post-malarial anemia was markedly benefited.

Izal Oil as an Intestinal Disinfectant.—The limit to the scope of the antiseptic method both in preventing and in subduing disease has by no means yet been attained. Such is the hopeful view taken by M. H. GORDON (Lancet, Mch. 8, 1902). Izal oil, which is unfortunately a proprietary article, was discovered by J. H. Worrall while investigating by-products met with during the conversion of coal into coke. Chemically it consists of oxidized hydrocarbon with a larger proportion of hydrogen to the carbon than the members of the phenol series and a less proportion than the members of the methyl-alcohol series. It has a high boiling-point and is insoluble in water. The main preparations are: (1) Izal oil; (2) an emulsion containing 40 per cent. of the oil, and (3) ordinary izal fluid, which is

also an emulsion containing 40 per cent. of the oil, but not as specifically refined as the last. This new compound would seem after the very severe bacteriological test to which it has been subjected to fulfil the very ideal of an intestinal antiseptic. Its germicidal properties are of very high grade, while its toxicity to the individual is encouragingly low. Without attempting to go into the detail of these experiments which have been made with the utmost care, it will suffice to note some of the results obtained. The izal was given in the form of capsules, each one containing two minims of the pure drug, not more than three capsules being given at a time. The largest amount given in twenty-four hours was twenty-four minims. No unpleasant symptoms resulted. The movements have the characteristic odor of the drug, showing that it is capable of exerting its antiseptic influence throughout the alimentary tract, even when given in this dosage. An interesting deduction from the experiments was that the diminution of micro-organisms in the feces was broadly proportionate to the dose of the drug; thus after twenty minims of izal oil had been taken, the reduction of the organisms was 68 per cent., and only after forty-two minims did it reach 86 per cent. On the other hand, after izal had been stopped the organisms were increased by 300 per cent. It would seem justifiable to believe that these figures establish the worth of a new intestinal disinfectant incomparably more valuable than either salol or betanaphthol. The only disappointing factor is that all the pathogenic germs are not destroyed. Inasmuch, however, as such a large percentage of them are disposed of one may hope that the equilibrium of the alimentary canal, which is undoubtedly a potent factor in health, may be reestablished by the efficient help of this drug, and that its help may suffice in critical cases of intestinal infection to tide the individual over periods which might otherwise prove impassable.

Trifacial Neuralgia.—The results in the treatment of this severe and tenacious malady have never been satisfactory, for although temporary relief may be obtained the pain usually returns sooner or later with even greater severity and the patient's life is made most miserable. H. T. BARBER (N. Y. Med. Jour., Mch. 15, 1902) recently obtained excellent results from the use of aconitine in doses of one-tenth of a milligram every four hours, continued till the pain had subsided, and then followed by the administration of large doses of iron kept up for several weeks following. The tonic treatment seems essential to permanent benefit.

Therapy of Ductless Glands.—There is a probability that in the near future the therapy of the secretions of the thyroid and thymus glands, the spleen and suprarenal capsule will be much better understood and valuable results obtained from their use. Thyroid administration has already proven a specific in myxedema. In simple goiter, says M. SHELLENBERG (Med. Times, Mch., 1902), before degeneration has occurred, thyroid treatment often brings about destruction and absorption of the overgrown gland. The thymus gland has not been found to have any valuable therapeutic properties. The suprarenal extract is now rather extensively used as a local hemostatic and internally to stimulate the heart and increase the blood-pressure. There is considerable proof that this extract is valuable in the treatment of Addison's disease. The splenic extract has been employed by H. C. Wood in several cases of exophthalmic goiter and most satisfactory results have been obtained in two. The tumor has almost disappeared, the nervousness and dyspnea have ceased, although some exophthalmos persists and the heart is still irritable. Wood states that he has never seen so near an approach to a cure in exophthalmic goiter as in these two patients.

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No. 111 FIFTH AVENUE, NEW YORK.

Subscription Price, including postage in U. S. and Canada

PER ANNUM IN ADVANCE	\$4.00
SINGLE COPIES10
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LEA BROTHERS & CO.,

No. 111 FIFTH AVENUE (corner of 18th St.), NEW YORK.

SATURDAY, APRIL 26, 1902.

A GREAT PRACTICAL CLINICIAN.

It was a gracious tribute to a deserving man for the New York Academy of Medicine to send a cablegram of congratulation to Professor Ernest von Leyden of Berlin on the occasion of the celebration of his seventieth birthday on April 20th. Few men in modern medicine have merited the praise of their contemporaries more than Professor von Leyden. The expression that has often been employed of lesser men may well be applied to him, *nihil tetigit quod non ornavit*.

He has taken up no subject without bettering it. Anything that Leyden has worked at bears the impress of his genius for patient successful clinical investigation. His work embraces almost every field in the science of medicine. Everywhere there are ideas of his of immense practical importance and of suggestive value.

His career should be a source of inspiration for many a man beginning the profession of medicine at the present time. He was a student of Schoenlein and Traube at Berlin and afterward entered the Prussian Army. During his service as a military surgeon he investigated especially the nervous diseases which occur among soldiers. He had the opportunity to make autopsies and in 1863, when only just past thirty years of age,

he wrote a very striking monograph, *Die Graue Degeneration der Hintern Rückenmarks-Stränge* (The Gray Degeneration of the Posterior Columns of the Spinal Cord), which retains even to the present day something more than historical interest. Principally as the result of this work, he received a call to the ordinary professorship of medicine at the Prussian University of Königsberg and became the director of the internal medical clinic at the University hospital there. At this time he was only just beyond thirty-two years of age. His first work at Königsberg saw the light in the *Beiträge zur Pathologie des Icterus*, published in 1866.

After seven years of work in Königsberg, all of it of more than usual value, Professor Leyden was called to the University of Strasburg. It was the purpose of the German Government to propitiate the inhabitants of Alsace and, as the French University of Strasburg had been destroyed by the cession of the province to Germany, the Prussian Government resolved to begin the work of propitiation by founding a university that would be known throughout Europe for the excellence of its faculty. Von Leyden and Von Recklinghausen, whose work had attracted so much attention at Königsberg, became members of the new faculty. Von Leyden's attention was once more directed to nervous diseases and in 1874 the first volume of his classical work, *Die Klinik der Rückenmarks Krankheiten* appeared. The succeeding volumes were issued the following years. Other works in medicine of almost equal clinical value attracted the attention of the medical world to the faculty of the new University before it was yet five years old.

As a consequence Von Leyden was called in 1876 to Berlin to succeed his old professor, Traube. In 1879 with Von Frerichs he founded the *Zeitschrift für klinische Medizin*. Since then most of Von Leyden's work has appeared in this journal and his contributions to medicine either directly or through the assistants whom he has inspired embody some of the best work in latter-day clinical medicine. His ideas have always been received with respectful attention by the medical world because, while no one doubted the originality of his genius, every one recognized in him a thorough-going conservatism that made his opinion seriously valuable. At the present moment few clinicians deserve to hold a higher place in the estimation of the practitioners of the world than Von Leyden, whose work has always been of an eminently practical character.

SUBSTITUTION ONCE MORE.

THERE is no more pathetic commentary on human nature than to see a scientific man devoting years to the discovery and perfection of some remedy that will combat disease, and then to watch the tricky man of business bending every effort to imitate his discovery, and to line his pockets with dollars by passing off a fraudulent substitution.

It is a grim fact, though few of us realize it, that every well-known drug is adulterated and every standard preparation is imitated. Morphine, phenacetin, trional, sulphonal, strychnine, quinine, every agent on which we depend to stimulate the flagging heart through a crisis, to deaden pain or to quiet nerves; all are at times subject to gross sophistication. The satire of Satan is in the combination when a conscientious, keen-witted physician ponders his patient's every symptom and writes a prescription, or orders a preparation with the exact dose suited to that patient's dire need, and then hands it to a member of the family, who carries it in haste to the drug-store on the corner, from which is promptly dispatched a carefully weighed and certified preparation made from old, cheap roots, non-official leaves, and adulterated powders. The trained nurse carefully doles out the allotted portion at stated intervals, but the anxious doctor realizes that his patient does not react.

How often in such cases does it occur to us that any and every drug which may enter into our prescriptions may be adulterated? And if it did occur to us, how could we prove it? Our own ignorance of the preparation of drugs is no fault of ours. The days are passed when the country doctor culled and brewed his thoroughwort and blue-cohosh. The only assurance that we can have is in the integrity of the pharmacist and manufacturer; and because of our need of this assurance, we urge, nay, we insist, that our brother physicians interest themselves more in ascertaining the reputation of the firms with which they deal. The recent discoveries in physiological chemistry and the corresponding manufacture of preparations of drugs along the line of these discoveries are offering great possibilities to the physician, and we regret to say also to the unprincipled manufacturers of imitations. It is galling to think that, while a patent medicine man can legally defend his rights, the physician whose prescriptions are filled with worthless materials has no redress.

We are happy to see, however, that the importer of one of the newer German preparations,

on which physicians have learned lately to depend, has acted promptly in this matter of self-defense and has brought suit against an imitator. The Superior Court of Massachusetts has given a decree in favor of the M. J. Breitenbach Company, who import Gude's Pepto-Mangan, against Henry Thayer and Company, who were putting out a package closely resembling that of Gude's, and called Peptonate Manganate. The judgement was sharp, sweeping, and, we hope, salutary.

This flagrant imposture is but a passing illustration of what is going on all the time. It shows the need that we, as physicians, examine our prescriptions, see that our orders are filled exactly, and that we should make a public fuss when such instructions are tampered with. It is no use to shift the responsibility upon the law-makers. There are enough pure-drug laws in New York State to hang an offender. But they are useless because they are not enforced. It is our duty as individuals to insist on obtaining pure products.

ANTITOXINS, VACCINES AND MUNICIPAL MANUFACTURE.

IN New York City the clash of interests between private mercantile enterprise and corporate municipal endeavor has come to the surface in a rapid and striking manner. There have been mutterings in the past and the St. Louis tragedy and the Camden accidents have each in turn served as cudgels for the opposing parties, and at times for internecine war in the camps of one party.

Last week a hearing was given by Mayor Low to representatives of the drug trade and a petition signed by over one thousand "physicians, manufacturing, wholesale and retail druggists, and taxpayers," asking that the sale of vaccine virus and of diphtheria and other antitoxins by the Department of Health be stopped.

The reasons submitted fall under three heads—that the sale of these products imposed on the Department bacteriologists additional duties which were repugnant to the scientific mind; that it was contrary to the principles of political science, and unjust to mercantile interests; and that it diminished confidence in the Board of Health. It was further presented that if the Board of Health needed appropriations to carry on their scientific work, such money should be granted them, but it should not be allowed to derive a revenue by selling therapeutic agents in competition with druggists. They conclude, "Let

the gratuitous distribution of virus and antitoxin continue, but stop the sales."

Elsewhere (MEDICAL NEWS, 1901, Vol. 79, p. 825) we have held that "the evidence warrants the conclusion that any board of health, city or State, is privileged to manufacture sufficient of these or other like commodities to provide for the sick poor of the community who are a charge upon its bounty. To manufacture over and above such quantities or to make sale of the same for private or for civic gain is, we believe, unjustifiable."

We have discussed most thoroughly the chances for deterioration, sophistication and adulteration of products of this type, and we hold that the office of a health department is that of a regulator and inspector of remedies used and not a sales agent for the same. Reputable houses have more at stake than has the shifting political menage that regulates a health department; moreover, civil suit can be brought and damages collected from a manufacturer if goods are not as represented, whereas the citizen has no recourse against a municipality. This seems to be the lesson taught by the St. Louis accident.

ECHOES AND NEWS.

NEW YORK.

Dr. Park at Yale Medical School Commencement.—Dr. Roswell Park will deliver the address at the anniversary exercises at Yale Medical School on June 24th.

Gift to the Saratoga Hospital.—Mrs. Henry B. Hyde of New York City has provided the Saratoga Hospital with a full equipment of sun parlors, which have just been completed.

Professor Leyden's Seventieth Birthday.—On Saturday, April 20th, Professor Ernest von Leyden of Berlin celebrated his seventieth birthday. On motion of Dr. Einhorn the Academy of Medicine decided at its last meeting to send him a cablegram of congratulation on that event. Professor von Leyden is at the present time one of the greatest living clinicians and a man to whom in many branches of medicine the profession owes more almost than to any other man alive. At the ceremonies in Berlin in honor of the auspicious event a bust of Professor von Leyden was unveiled and Professor Nothnagel of Vienna delivered an address.

Appointment of Dr. Brettauer.—Dr. Joseph Brettauer has been appointed attending gynecologist at the Mt. Sinai Hospital to succeed the late Dr. Paul F. Mundé.

The Boer Prisoners in Bermuda.—The May number of "The Era" has an illustrated paper on "The Boers in Bermuda," by Dr. J. B. Mattison of New York. During his outing there the past winter, he was given access to the captive camp, the last civilian so favored, and his story is of interest.

Presbyterian Hospital Alumni.—The Society of the Alumni of the Presbyterian Hospital in the City of New York was incorporated under the laws of the State on April 16, 1902. At the annual meeting held at the Presbyterian Hospital on April 12th, the following officers

were elected for the ensuing year: President, B. Van D. Hedges, M.D.; Vice-President, David Bovaird, M.D.; Secretary, John Howland, M.D. The following Board of Directors was elected: To serve five years, Henry L. Shively, M.D.; to serve four years, William K. Simpson, M.D.; to serve three years, Arthur M. Jacobus, M.D.; to serve two years, John A. Hartwell, M.D.; to serve one year, Forbes Hawkes, M.D.

The next meeting of the Society will be held at the Arena on Saturday evening, May 17, at 7.30 p.m. Dr. C. K. Briddon will address the Society on "Reminiscences of Half a Century in Medicine and Surgery."

Dr. E. A. Tucker.—The Medical Association of the Greater City of New York has learned with the deepest regret of its loss by death of a most promising member, Dr. Ervin A. Tucker, one of the founders of the Association. By inherent ability, thorough preparation, and hard work, Dr. Tucker had gained the front rank in his specialty of obstetrics, and had won the admiration and respect of his colleagues and his many friends. He seemed to be at the threshold of a most useful and distinguished career when his life closed. Be it hereby

Resolved, That we extend our deepest sympathy to the bereaved widow; that this note be entered upon our minutes, and that a copy be forwarded to the widow.

EDWIN B. CRAGIN,
J. CLIFTON EDGAR,
J. MILTON MABBOTT,

Committee.

Manhattan Dermatological Society.—The last meeting was held April 4, 1902, at the residence of Dr. Pisko, Dr. Wm. S. Gottheil presiding. Dr. E. L. Cocks presented a patient with annular shaped patches on abdomen, chest and upper and lower limbs; the eruption shows purplish centers; one year ago a similar eruption with vesicles; at present no vesicles, although they were present a few days ago; eruption rapidly fading since then and the picture of erythema multiforme not a typical one; appearance one year ago more marked and typical. Dr. Cocks presents it as erythema multiforme. Dr. Oberndorfer was not willing to make that diagnosis at first glance; the indistinct eruption and atypical picture as now presented make him hesitate in making any other diagnosis; in view of the history he agrees with Dr. Cocks. Dr. Kinch said the limbs look like erythema multiforme, but the neck shows a distinct scaly patch, more like eczema seborrhoicum. Drs. Pisko, Bleiman and Gottheil think the eruption resembles eczema seborrhoicum rather than erythema multiformis.

Dr. Gottheil showed a woman with lesions on face, neck and arms. Many years ago there developed red circular patches on forehead, then on neck and arms; marking these original sites there can be seen distinct circular areas of atrophic skin, at these points being quite thin, loose and elevated, with margins sharply defined; the condition had been diagnosed by previous observers as lupus, eczema and a nerve lesion; to these Dr. Gottheil took exception and believed the atrophy due to pressure from a previous growth, since absorbed.

Dr. J. C. Johnston said he had already seen the case and that the original trouble might have been a soft fibroma, which by pressure caused atrophy of the skin and subcutaneous fat and muscle; subsequently, the tumor underwent resolution. Dr. Geyser believed the atrophy due to trophoneurosis. Dr. Abrahams thought this case resembled his case of atrophica cutis propria recently presented; if neoplasm was present he did not think it would have escaped observation and record. Drs. Cocks, Bleiman and Oberndorfer inclined to the opinion of neoplasm with subsequent pressure, atrophy and finally absorption of growth.

Dr. Sobel presents a child five weeks old, born at full term, precipitately; mother had six living children, no abortions; placenta delivered spontaneously and was of a pale green color (mother's statement); child shows no sign of lues or sepsis; temperature normal and general circulation good, heart and lungs normal; likewise abdominal organs. Over both deltoids there is marked induration of skin and underlying tissues; right and left buttocks hard and leathery; the chest shows small areas of induration; face not involved. Presented as a case of "scleroma neonatorum." Diagnosis concurred in. In speaking of prognosis, Dr. Sobel thought that the outlook here was not so grave, because the child had lived for five weeks; the temperature is normal; the general circulation is good and the process quiescent.

Dr. Pisko showed two cases of zoster; one involving the right iliac region; the other the right chest (axillary and mammary line). In the latter case the patient was treated with Fowler's solution, 10 drops t.i.d., for an old lichen eruption on foot and ankles; there developed during arsenical treatment mild gastro-intestinal disturbances and the appearance of the zoster. Dr. Pisko regards the zoster due to the arsenic. In another (a third case) Dr. Pisko saw a case of zoster develop during antipyrine medication. Dr. Oberndorfer said that zoster was a common disease and was not willing to attribute its appearance to the arsenic given. Dr. Johnston said arsenic may have been causative in this case; he saw it develop in a case of mycosis fungoides, after the administration of arsenic. Drs. Cox, Abrahams and Sobel regard the zoster as accidental and not due to arsenic.

Dr. E. L. Cocks presented a case of lupus vulgaris showing the result of treatment; right side treated with pure carbolic acid locally and iodoform internally; left side untreated; right side healed, result excellent; Dr. Cocks feels justified in continuing along the same lines, but asks what influence the X-ray would have on the left (untreated) side. Dr. Geyser said that the immediate effect would be breaking down of tissue, but the remote result would be cure. Dr. Abrahams said urea was given in tuberculosis and suggested it be tried in this case, 30 grains daily. Drs. Sobel and Gottheil would indorse the method of Dr. Cocks, also trying urea.

Dr. Oberndorfer presented a case of erythema exudativum iris, limited to both forearms; patient has an attack nearly every year which lasts two or three weeks. Case considered typical. A case of molluscum sebaceum et verrucosum limited to scalp; shown by Dr. Oberndorfer. The eruption began two weeks ago and spread rapidly over entire scalp; from the small pearly tumors the molluscum corpuscle could be easily expressed.

Dr. Gottheil shows a case of erythema multiforme, involving chest, back, upper and lower limbs; circular patches with purplish centres. On the neck patches of vitiligo. Dr. Johnstone thought it looked like pityriasis rosea. Dr. Kinch said a syphilide; Drs. Sobel and Cocks erythematosa multiformis.

Dr. Pisko presents a case of diffuse scleroderma; as a result of treatment with thyroid extract 5 grains t.i.d., (which he stands well), the condition has been greatly improved; case under observation for five years. Taking thyroid now two months.

Dr. Gottheil presented his case (already shown to society) of sarcoma cutis. Diagnosis confirmed by microscope; under treatment one year with excellent results; tumors gradually diminishing.

Dr. Pisko presented a case of recurrent erysipeloid, confined to upper lip and left wing of nose; first attack two years ago; second, three months ago; unaccompanied by constitutional symptoms; there are redness

and some thickening of parts involved. Dr. Abrahams saw many such cases, usually accompanied by lesions of the nose; by treating the latter the former got well. Dr. Johnstone objects to the term erysipeloid; the latter was applied to "Rosenbach's" disease and often seen in fish-dealers and butchers, on the thumb; on the face due to infection. Dr. Sobel sees no difference in the terms erysipeloid and pseudoerysipelas; the accompanying nasal complication he treats with solution ichthyol 50 per cent. Dr. Bleiman said that the lesion of nose was not a nasal catarrh; if so we would see more such cases; the lesion was a folliculitis primarily and confined to the dermo-nasal juncture.

Dr. Pisko also showed a second time his case of folliculitis of forearms, with microscopical sections showing granulomatous formation (and infiltration of hair follicles). Dr. Johnstone said this condition has been variously described under many different titles. Dr. Pisko said the condition remains uninfluenced by any method of treatment.

Dr. Geyser showed a radiograph of Dr. Abrahams' case, showing fracture of terminal phalanx with exostosis.

Dr. Gottheil showed photographs of his case of pityriasis rosea presented at previous meeting.

What the Health Department has Done.—This is the outline given by the "Evening Post" of what the Health Department has done since January 1st, under Commissioner Lederle: Fought the spread of small-pox by vaccinating more New Yorkers in three and one-half months than have ever been vaccinated in a whole year before; secured better food and better care for patients in contagious-disease hospitals without increasing the expenditures; obtained \$500,000 with which to improve and extend the hospital plant, that New York may treat its contagious-disease patients, especially the poor, in a more civilized way; arranged for prompt notification to all schools and philanthropic societies of cases of contagious disease, thus enabling them to isolate all who have been exposed. It has saved the people of the East Side from the nuisance threatened by a proposed \$750,000 slaughter-house, whose owners proposed to render fat and boil bones on the premises; set in force a definite policy of reducing the number of offensive trades on Manhattan Island; worked for a purer milk supply by causing the arrest and punishment of between one and two hundred dishonest milk-dealers; secured the arrest and punishment of burners of soft coal who seek to make New York like Pittsburgh or Chicago; checked the spitting nuisance by wholesale arrest of offenders; forced the Metropolitan Street Railway to stop using the flat-wheeled cars which keep citizens awake at night; instituted prosecutions by arrest or civil suit on about 1,000 old complaints of all sorts of nuisances, which had been pigeon-holed; secured adequate fire protection for the hospitals, and set on foot plans for the preservation of the city's vital statistics records; with all this new work, effected so large a reduction of the pay-roll on January 1st that a cut of only \$62, in a budget of \$1,000,000, was necessary when the Board of Estimate on April 7th ordered all departments to reduce the salary-list 10 per cent. Surely this is a good record.

Long Island College Hospital Alumni Association.—At the next regular meeting of this Association Dr. Glentworth R. Butler will read a paper on "Difficulties in the Diagnosis of Certain Febrile Diseases." Drs. A. Stengel, F. A. Packard, W. H. Thomson and A. Jacobi will discuss this paper. Dr. J. O. Polak will read a paper on the "Early Diagnosis of Uterine Carcinoma," to be discussed by Drs. J. G. Clark, J. M. Baldy, E. Janvrin and W. R. Pryor.

PHILADELPHIA.

Presbyterian Hospital.—Dr. George C. Stout has been elected chief of the department of otology and laryngology to succeed the late Dr. Charles H. Burnett. Dr. Stout is also professor of otology at the Philadelphia Polyclinic and laryngologist to St. Mary's Hospital.

Death of Dr. Wirgman.—Dr. Charles Wirgman died April 19th, after a long illness. He had long been a trustee of Jefferson Hospital and visiting physician to many of the hospitals of the city.

Filter Beds near Completion.—Rapid progress is being made on the four filtration plants being constructed and it is believed that they will be finished months ahead of the time specified in the contracts. This is particularly true of the two filter beds at Roxborough, both of which are practically finished and will permit of preliminary tests within the next few weeks.

Sues for a One-Dollar Fee.—A report from Williamsport states that Dr. C. D. Hunt has brought suit against the County Commissioners to recover a one-dollar witness fee. Dr. Hunt was called upon to testify before the Coroner in the case of a man who had fallen dead on the street. The suit will be a test case, as the Commissioners claim there is no law authorizing the payment of the fee.

Christian Scientists not Held Responsible for Death of Child.—Coroner Nugan has refused to hold two women practitioners of Christian Science responsible for the death of a five-year-old child from diphtheritic croup. A physician who was called by one of the women found the boy dead on his arrival and reported the case. As no charge for their services had been made it was held that no prosecution for illegal practice could be brought.

Rush Hospital for Consumptives.—A farm of 47 acres in Chester County has been acquired for use as a country branch for the treatment of incipient cases. The site has an elevation of 635 feet. If results justify, it is the intention to erect cottages similar to those in the Adirondacks.

Dr. Welch Again Commended.—At the business meeting of the County Medical Society, April 16th, the candidacy of Dr. William M. Welch for the presidency of the State Medical Society was again endorsed. The following resolutions were also adopted:

Resolved, That the Philadelphia County Medical Society heartily endorses the administration of the Municipal Hospital of Philadelphia during the smallpox epidemic.

Resolved, That it commends Dr. William M. Welch and his able corps of assistants for the efficient and thorough manner in which every detail of the arduous and responsible work of that institution is, and has been, carried forward.

CHICAGO.

Transfer of Incurable Patients.—The Superintendent of the Cook County Insane Asylum has transferred sixty-five incurable women to the Hospital for the Incurable Insane at Bartonville.

Examination for Internes.—The annual examination for internes for the Illinois Charitable Eye and Ear Infirmary will be held at the Infirmary, 227 W. Adams Street, Chicago, Monday, April 28th and April 29th. The number of positions to be filled is three, and the length of service is one year. The examination is open to any practitioner of medicine or graduate of any recognized medical college.

Recommendations from the Medical Officers of the Day.—The medical officers of the day recently established at Cook County Hospital have made from day to day the following recommendations: First, that

the number of visitors to the hospital be restricted; second, that a convalescent home be established; third, that rollers be placed on all beds in the hospital; fourth, that closer watch be kept to prevent smuggling of liquor to patients; fifth, that convalescents be permitted to have more outdoor recreation; sixth, that outdoor exercise and tennis be prescribed for internes and nurses; seventh, that a dressingroom be provided for non-septic patients; eighth, that female patients be permitted to visit the lawn; ninth, that the wards and beds be constantly painted.

Followers of Dowie to be Vaccinated.—It is said that John Alexander Dowie, scared either by the presence of smallpox in Zion, or by the bill of expense he will have to meet, has issued an order allowing his subjects to be vaccinated. He will have to meet a bill of expense when the epidemic is over, paying \$25.00 a week for the care of each patient at the isolation hospital, besides \$2.00 a day for the services of four city policemen who have been enforcing the quarantine.

Surgical Treatment of Neuritis.—At a recent meeting of the Chicago Neurological Society, Dr. Weller Van Hook read a paper on this subject. He said that surgery is in a position to be of service in the treatment of the consequences of neuritis rather than in the management of the actual disease itself, whether in the acute or chronic form. In the acute form of the disease, aside from those instances in which a suppurative lesion is present, very little can be done by surgical means for the relief of the patient. When pressure upon a nerve is superinducing neuritis or neuralgia, the case belongs strictly within the province of surgery. When fractures primarily or secondarily involve large nerve trunks, operative procedures are frequently needed. For example, when a fractured clavicle presses upon the brachial plexus, relief by elevating the fragments and separating the connective tissue from the nerve is an absolute necessity. Not infrequently the long bones, when fractured, similarly press upon important nerve trunks. In the chronic forms of neuritis, surgery is of more frequent avail. The glittering promises which were made some years ago for good results to follow stretching of large nerve trunks have scarcely been realized. It has been demonstrated by both clinical and experimental study that far-reaching consequences follow the stretching of large nerve trunks; the lesions are prone to extend into the spinal cord or into the brain, as the case may be. For this reason surgery is very conservative in the matter of applying nerve stretching in all forms of chronic peripheral neuritis. It is in the treatment of the consequences of peripheral neuritis that surgery finds the greatest scope. In compression of nerve trunks by periostitis, it is quite admissible to remove the connective tissue around the nerve, an operation which is termed neurolysis. Where neuralgias are due to periostitis pressing upon a nerve trunk, as, for example, in the case of the inferior maxilla, it is desirable to chisel away that portion of bone which confines the swollen periosteum and causes it to press unduly upon the nerve trunk. The commonest form of compression is probably by the action of exuberant callosity. It is the usual practice here to excise the new-formed bone material from about the nerve, and results have been excellent. Tumors of a non-malignant character that press upon large nerve trunks, producing more or less of an inflammatory condition, would be subject to attack by excision, while perhaps those which are of malignant character might demand removal of the nerve. The method of extraction of the nerve, exeresis, at first practised by Thiersch, is still in very common use. Undoubtedly, the majority of cases of neuralgia of the trigeminus can be cured by exeresis, and it is by no means necessary or desirable that the Gasserian ganglion

should be excised in ordinary cases of this disease. On the contrary, this formidable and dangerous operation should be reserved for those cases in which peripheral operations have been thoroughly tried.

Prevention of Conception; Criticism of Some Methods.—Dr. Gustav Kolischer read a paper on this subject, in which he said that the prevention of conception was not only a sociologic, but a medical problem. Lately, contrivances which are applied to and left inside of the female organ have become more and more popular. These contrivances, mostly soft rubber pessaries, while not perfectly certain as to their aim, may be the source of serious complications for both male and female. In some individuals an idiosyncrasy exists for soft rubber. These extraneous bodies are apt to produce considerable irritation, terminated in purulent catarrh and its consequences, ascending infection of the uterine appendages, and urethritis in the male. Genital organs, which previously have been subjected to gonorrheal infection, are especially prone to serious affections from this source. Latent gonorrhea may become virulent and acute owing to the presence of the extraneous body. If rubber caps are used at all, they should not be left for any length of time inside the vagina, as is the usual practice, and strong antiseptic douches are to be used constantly.

Fallacies of Cystoscopy.—Dr. Louis E. Schmidt, in a paper on this subject, directed special attention to the error of diagnosing cystoscopic burns as idiopathic ulcers. He has seen not only diagnosed, but even demonstrated, such burns as ulcers. While the inexperienced cystoscopist is more apt to burn the bladder, he is liable for the same reason to misunderstand and misrepresent these burns. The experienced man will easily recognize them because of their location and the lack of inflammatory reaction in their neighborhood. Furthermore, there is a decisive test, namely, the burns heal up inside of ten or fourteen days without any curative influence, which is never the case in actual ulcers. There are general conditions in the way of examination which are apt to influence the reliability of determining cystoscopic findings. If the bladder be distended with air, there is such a shining appearance of the mucosa that the multitudinous and various reflexes make it quite difficult to find out exactly about the details. This condition is increased during an extended examination through the urine which flows down out of the ureters. Another complication may arise from not working with an appropriate optical apparatus. It must not be forgotten that the total examination of the bladder furnishes combination pictures only. A proper optical apparatus enlarges the field of view, and this is one of the prominent features of Nitze's cystoscope. Pictures derived from the observations through a cystoscope of direct view, and without the view being enlarged with an optical apparatus are apt to lead to misconstructions, because they are combined out of views of very small areas.

Weekly Bulletin of the Health Department.—The deaths reported for the week ending April 19th were fewer in number than for the corresponding week of 1901. The total 529 was thirty-three less than for the preceding week and twenty-two less than for the week of the year before. There is nothing, however, in obvious conditions to warrant the hope that this reduction will continue. On the contrary, the type of many diseases is assuming a more severe character; smallpox, especially, which has heretofore been very mild—only one death in 139 cases since January 1st—is taking on the old-time typical form, with pronounced initial symptoms, profuse eruption and high secondary fever. Five out of the eleven cases discovered during the week, including one from Iowa and one from New Jersey,

are of this severe type. Similarly as to diphtheria and scarlet fever, the latter being particularly malignant and still spreading. There is gross carelessness not only on the part of parents, but in asylums and hospitals in respect to this red pest, and investigations now being made by the Department may lead to the revocation of the licenses of some of these institutions. There were 173 cases reported last week and there have been 196 deaths since the first of the year as against only fifty during the first 109 days of 1901. If Noah Webster were still alive he would find much in present conditions to strengthen, if not to prove, his contention concerning epidemic and pestilential diseases. The great lexicographer in 1799 published a work on this subject in which, beginning with the mention in the fifth chapter of Exodus of the bubonic plague in Egypt, he collates the various epidemics of Asiatic cholera, bubonic plague, influenza, measles, scarlet fever, smallpox, typhus and yellow fever, down to the close of the eighteenth century, with the appearance of comets, earthquakes, volcanic eruptions, periods of drought and of flood and other "phenomena of the physical world which precede and accompany such epidemics." Every one of these phenomena has been in evidence during the last twelve months. Unexpected comets in bewildering number, earthquakes in every quarter of the globe, volcanic eruptions, tidal waves and inundations, unprecedented drought over vast areas with equally unprecedented precipitations over other regions, have combined to make this period a marvel even to "the oldest inhabitant." And during this period, as recited in previous Bulletins, smallpox has been more prevalent than at any time in the last thirty years, Asiatic cholera, bubonic plague, pneumonia, scarlet fever and other pestilential diseases have been or still are epidemic in many parts of the world. The last word has not yet been said on the "epidemic constitution of the atmosphere" and there may be more in the theory than modern medicine has yet learned. But it has learned that no amount of cosmic disturbances will cause smallpox in a properly vaccinated person; it has learned that the spread of scarlet fever will continue so long as its subjects are allowed to mingle with others while yet "scaling"; that pneumonia is a dangerously contagious disease which demands isolation and disinfection only less urgently than smallpox itself; that the "great white plague" is an essentially controllable disease; that Asiatic cholera, typhoid fever and much acute intestinal disease can be here in Chicago all hydrant water for drinking purposes certainly avoided by drinking only pure water, and that should be boiled at the present time.

CANADA.

Personals.—Surgeon Lieut.-Col. F. W. Campbell, Montreal, has just received from the Militia Department at Ottawa his "officer's" long service decoration. Dr. Campbell has been forty-three years in the Militia Service of Canada.—Dr. John Stewart of Halifax, N. S., who is to read the Address in Surgery at the coming meeting of the Canadian Medical Association in Montreal, has been appointed secretary of the Medical Society of Nova Scotia in succession to the late Dr. W. S. Muir.—Dr. David Shirres of McGill University, Montreal, has received the appointment of professor of nervous diseases in the University of Vermont.—Dr. A. E. Randall, Truro, Nova Scotia, has started collecting a Muir memorial fund to establish a hospital in memory of the late Dr. William S. Muir.—Dr. D. H. Morgan, a graduate of Trinity Medical College, 1897, has recently been appointed assistant dermatologist in the New York Post-Graduate Medical School.

Canadian Bacteriological Station.—The Government Bacteriological Station, which for the last three

years has existed at Montreal under the direction of Professor Adami of McGill University, has been ordered closed by the Department of Agriculture. For that space of time scientific observations have been conducted there regarding tuberculosis in cattle. Now the bacteriologist, Dr. Higgins, has been removed to Ottawa and has been attached to the cattle quarantine staff. These investigations will henceforth be conducted at Ottawa; and it is not unlikely that the scope of the researches may be extended to tuberculosis in human beings, but no definite plans for the future have yet been made.

Montreal Western Hospital: Quarterly Meeting.—The regular quarterly meeting of the Board of Governors was held last week. The resignation of Dr. H. L. Reddy, one of the members of the attending staff, was accepted and the Doctor was appointed on the consulting staff. Dr. W. Grant Stewart was appointed on the attending staff as his successor.

Montreal's Powers in Dealing with Infectious Diseases.—At a meeting of the Hygienic Committee of Montreal last week, Alderman Ames, who takes a deep and active interest in all matters pertaining to the health of that city, stated that he had consulted with the City Attorney regarding the powers of the local board of health in dealing with persons affected with infectious diseases as regards sending them to hospital. The City law officer gives it as his opinion that if a patient be residing in a hotel, boarding-house or tenement containing more than one family, a vessel, railway car or carriage, the sanitary authorities are empowered to remove that patient and place him in a hospital, but this is not the case when a patient resides in a self-contained house. As Montreal has recently had trouble with regard to removing certain smallpox patients, and as the law now stands they cannot compel the removal of any one residing at his home, other than as above, it is altogether likely that the Montreal Board of Health will seek power from the Provincial Board of Health to enact a by-law which will empower them to enforce the removal of such patients. The question of cost to the city in these cases is a vital one, as a patient can be attended in hospital for half the amount required to treat him in his own home.

Diseased Immigrants Entering Canada.—This vital question was discussed in the Dominion House of Commons during the past week. During the discussion the Minister of the Interior, the Hon. Clifford Sifton, whose department has charge of immigration, stated that he had recently caused an inquiry to be made respecting certain extravagant statements which had been made with regard to the dumping of immigrants into Montreal, through the same having been refused passes into the United States by officials of the American Government stationed in that city. It had been stated that there were two hundred diseased immigrants in the hospitals of Montreal. To refute this the Minister produced letters from the superintendents of the Montreal hospitals, which went to show that in the Notre Dame Hospital there had been two cases in January, two in February and six in March; there had been none in the Royal Victoria for six months and none in the General for three months. The Hotel Dieu had seven patients of this character. Of 25,000 who had come into Canada, 132 had been rejected by the United States officials, and of this number only twenty-nine had remained in this country, the balance having been deported to their native countries.

Lunatics in Jails in Ontario.—The Mayor of Toronto and the Provincial Secretary of Ontario have crossed swords on this very important question. There are said to be forty lunatics in the Toronto Jail alone and as many more in other jails throughout the Prov-

ince. Although the Ontario Government has recently provided increased accommodation for insane persons, the conditions still prevail as regards these inmates of the jails. Apparently it looks as though the provincial authorities desire to foist upon the municipalities who must provide for their care and maintenance all those who are committed to the common jails on the charge of lunacy, and that for such cases the municipalities should provide a house of refuge. As the hospitals have refused to care or treat these cases, the question is likely to soon become one of practical politics.

Canadian Tuberculosis Conference.—The annual meeting of the Canadian Association for the Prevention of Tuberculosis was held at Ottawa on the 17th and 18th days of April with Sir James Grant presiding. Prominent medical men were present from Montreal, Toronto, Winnipeg and Victoria, B. C. On the evening of the 17th Dr. S. A. Knopf of New York delivered an address, as did also the Governor-General, Lord Minto. The report of the Committee on Organization recommended the formation of a central organization at Ottawa and the appointment of an efficient paid secretary. The Committee on Legislation pointed out the urgent need of preventive measures, in view of the fact that there are between thirty and forty thousand consumptives in Canada with an annual death-rate of 9,000, which is equivalent to one in six hundred and fifty of the population. It was recommended that Federal and Provincial Governments be asked to grant financial aid towards the establishment of sanatoria. It was also further recommended that active measures be taken to guard against the introduction of immigrants into the country suffering from tuberculosis. The Committee on Hospitals recommended that all general hospitals receiving public aid should make due provision for the accommodation of tubercularized patients. Dr. J. H. Elliott, superintendent of the Muskoka Cottage Hospital, was present and stated that on the 21st of April the Free Consumptive Hospital at Muskoka would be opened and would be able to accommodate fifty patients, and that in the near future it would be extended to accommodate at least one hundred. Mr. W. C. Edwards, M.P., was elected to the presidency of the Association and Dr. H. B. Small of Ottawa was made honorary secretary.

GENERAL.

Cholera Spreads in Manila.—The hottest sort of weather prevails in Manila and cholera is increasing. The transport Hancock, with a battalion of the Tenth Regiment, has been quarantined, owing to one death from cholera.

Association of French Physicians of North America will hold their first general conference at Quebec in June, 1902. French will be the only official language of the conference, to which physicians of the United States are invited.

Institutes for the Study of Cancerous Diseases.—The city of Frankfort-on-the-Maine has decided to create an Institute for the Study of Cancerous Disease; 500,000 marks will be devoted to this purpose. Prof. Ehrlich, at present director of the Institute of Experimental Pathology, will be placed at the head of the new Institute and all researches will be directed by him. A laboratory for the study of cancer, at the Charité in Berlin will be equipped by the German Government, and 150,000 marks have been assigned to the erection of an institute for the study of that disease.

American Medical Association.—The fifty-third annual session of the American Medical Association will be held at Saratoga Springs, New York, June 10-13, 1902. This Association was organized in 1847 and is the only representative National organization of the one

hundred and twenty thousand regular practitioners of medicine and surgery in the United States, having affiliated State and Territorial societies in every State and Territory of the Union, and county societies in a very large proportion of all the counties. It has steadily grown in influence and wealth, owns a spacious and costly building in Chicago where the business headquarters are located, and where it publishes weekly its journal of medicine and surgery which has the largest circulation of any medical periodical in the world. The annual meetings of this large body are held in regular rotation in different sections of the country. When north of Mason and Dixon's line the time selected is between the first and the fourteenth of June; and when held in the South two or three weeks earlier than this period. The session at Saratoga will be the fifth time in its history that the Association has been entertained in the Empire State. In 1853, '64 and '80 in New York City, and once in Buffalo, in 1878. Of the fifty-two Presidents of the Association, seven have been chosen from New York State. Dr. Alexander H. Stevens of New York City, elected in 1848; Dr. Alden March of Albany, N. Y., elected in 1863; Dr. J. Marion Sims of New York City, elected in 1875; Dr. Lewis A. Sayre of New York City, elected in 1880; Dr. Austin Flint of New York City, elected in 1884; Dr. Edward Mott Moore of Rochester, N. Y., elected 1890; Dr. John A. Wyeth of New York City, elected in 1901.

Virchow's First Outing.—Virchow took his first drive on March 23d, going directly to the Pathological Institute of the Charité. The patient was able to leave his carriage and, walking with a cane, went to his workroom. His gait is becoming steady and his general condition is excellent.

St. Louis Medical Society of Missouri.—This Society held a meeting on Saturday evening, April 19, 1902. The program included "A Clinical Study of Amebic Dysentery, with a Report of Ten Cases," by Dr. H. L. Nietert; "Endemic Amebic Dysentery," by Dr. Jesse S. Myer; "The Pathologic Findings in Amebic Dysentery," by Carl Fisch.

Moses Taylor Hospital.—Two appointments are to be made to the house staff of the Moses Taylor Hospital, each for one year's service, one beginning July 1st, 1902, the other January 1st, 1903. Examinations for the above appointments will be held in the Hospital Building May 2 and 3, 1902, at 9 A.M., and will be written, oral and practical, on Anatomy, Surgery, Practice of Medicine and Materia Medica. Candidates must make written application to the Superintendent and accompany the same by at least two letters of recommendation as to moral character, etc., one of which must be from a physician. Each member of the house staff is to serve six months as senior surgeon, during which time he will receive a salary of \$25.00 per month. The Moses Taylor Hospital is located at Scranton, Pa., and operated under an endowment from the Moses Taylor Estate for the benefit of the employees of the Delaware, Lackawanna & Western Railroad Company and the Lackawanna Iron & Steel Company. It has eighty-six beds, and the duties of its house staff consists largely of medical, surgical and dispensary work.

Birthday of Dr. Kussmaul.—On February 22d Adolf Kussmaul, who for forty years was professor of clinical medicine in different German universities, celebrated his eightieth birthday at Heidelberg, where he has lived in retirement since 1895. Additional interest is given to this anniversary by the recent publication of the octogenarian's youthful reminiscences in a volume entitled "Jugenderinnerungen einer alten Aerztes" (Stuttgart: Bonz & Co.). This autobiography is not only an exceedingly entertaining record of a remarkable career, but also a valuable contribution to the

history of the evolution of academic instruction and scientific research, especially in the department of medicine, during the first half of the nineteenth century. Kussmaul's father began life as a poor Suabian peasant boy, and rose to the position of a very capable country doctor with a high average of general culture, gentlemanly manners and fine social qualities rare in a person of such an origin. The son inherited these traits of character, as well as a predilection for the healing art, which he was able to foster under more favorable conditions. His name Kussmaul (Kissmouth, or, more literally, Kissmuzzle) did not tend to promote his advancement, and never failed to excite the astonishment and hilarity of his North German colleagues and acquaintances. As a student he bid in at an auction a volume of Béranger's "Chansons," and, on mentioning his name, was rebuked by the auctioneer for indulging in ill-timed jests. In Baden and Alsacia, family names implying osculation are by no means uncommon. It is said that at a ball in Carlsruhe the three most prominent persons present were two gentlemen, Kuss and Kussmaul, and a young lady named Küsswieder (Kissagain). When urged by a friend to change his name, he refused to do so, on the ground that few persons could show such an ancient and illustrious pedigree as his, averring that it could be traced back fifteen centuries to the famous Oribasius, physician in ordinary to Julian the Apostate, who, after the Emperor's death, suffered banishment and took refuge among the Goths on the Danube, where he was called Kussmaul. This fictitious etymology was accepted as a good joke even by philologists. Kussmaul's humor found expression in genial verses written before his exclusive devotion to science; these were afterwards printed for his friends as "The Puerile Poetic Pécadillos of Dr. Oribasius," and several are published in his autobiography.

Mississippi Valley Medical Association.—The Chairman of the Committee of Arrangements for the Twenty-eighth Annual Meeting of the Mississippi Valley Medical Association, Dr. A. H. Cordier, has announced the dates of the next meeting in Kansas City, Mo., as October 15, 16, 17, 1902. The President, Dr. S. P. Collings of Hot Springs, Ark., has announced the orators for the meeting, Dr. C. B. Parker of Cleveland, O., to deliver the address in Surgery, and Dr. Hugh T. Patrick of Chicago, the address in Medicine, selections which will meet with the approval of every physician in the Mississippi Valley. A cordial invitation is extended every physician in the United States, but especially of the Valley, to attend this meeting and take part in its proceedings. Titles of papers should be sent the Secretary, Dr. Henry E. Tuley, 111 West Kentucky Street, Louisville, Ky., at as early a date as possible to obtain a favorable place on the program.

Preliminary Program, Medical Association of Missouri.—Forty-fifth Annual Session is to be held at St. Joseph, Mo., May 20th, 21st and 22d, 1902. The following program is arranged: C. H. Wallace, Chairman, St. Joseph, Report on the Progress of Gynecology; O. Beverly Campbell, Chicago, A Plea for the Conservation of the Uterus in Pelvic Inflammation; H. E. Pearse, Kansas City, The Methods of the Control of Hemorrhage, and the Removal of the Pelvic Tumor; R. T. Sloan, Chairman, Kansas City, Report of Committee on Progress of Medicine; Charles Geiger, St. Joseph, Cellulitis; William Porter, St. Louis, The Care of Tuberculosis in the Home; F. H. Mathews, Liberty, Laboratory Diagnosis; T. E. Potter, St. Joseph, Tubercular Peritonitis; C. A. Mitchell, Blythedale, Senile Degeneration; C. W. Watts, Fayette, Auto-phagism and Auto-intoxication; M. D. Schmalhorst, St. Louis, Dyspepsia; A Study of the Gastric Functions Essential to Treatment: report of five cases; J. D. Griffith, Kan-

City, President's Address; Jabez N. Jackson, Chairman, Kansas City, Report of Committee on Reorganization; D. C. Gore, Chairman, Marshall, Report of Special Committee on Medical Legislation.

SECOND DAY: Bransford Lewis, St. Louis, Presentation of Ureter Cystoscopes for Male and Female; T. C. Witherspoon, St. Louis, The Causes of Appendicitis; A. H. Cordier, Kansas City, Some Clinical and Operative Phases of Appendicitis; G. Wiley Broome, St. Louis, Has Prostatectomy Come to Stay? John D. Seba, Bland, Report of a Case of Fatty Tumor, with Specimen; C. M. Nicholson, St. Louis, Removal of Tumor of the Liver, with Presentation of Patient; J. W. Perkins, Kansas City, Intero-scapulo Thoracic Amputations, with exhibition of specimen; C. J. Morrow, Kansas City, Surgical Procedures in Strictures of the Rectum; John Puntun, Kansas City, Cerebral Softening; Its Diagnosis and Treatment; Carcinoma Symposium: Opened by F. J. Lutz, St. Louis; Etiology: Roswell Park, Buffalo, N. Y.; N. Senn, Chicago; Robert C. Atkinson, St. Louis, Report of Committee on Progress of Pediatrics; A. H. Ohmann-Dumesnil, St. Louis, Some Cases of Diseases of the Nails. Two of Koilonychia.

THIRD DAY: Report of Committee on Nominations; E. W. Schaffler, Chairman, Kansas City; Report of Committee on Medical Ethics, A. W. McAlester, Chairman, Columbia; Report of Committee on Medical Education; John D. Seba, Bland, Medical Education; M. A. Goldstein, Chairman, St. Louis, Report of Committee on Laryngology; Hal Foster, Kansas City, The Subcutaneous Use of Paraffin in Deformed Noses; H. W. Loeb, St. Louis, Nose Bleed; M. F. Weymann, Chairman, St. Joseph, Report of Committee on Ophthalmology and Otology; George E. Bellows, Kansas City, The Pupil as an Aid in Diagnosis; J. E. Jennings, St. Louis, Eye Strain; Its Causes and Treatment; W. L. Kenney, St. Joseph, Cancer of Eyelids Treated by X-Rays, presentation of patient; J. W. Sherer, Kansas City, The Evolution of the Eye; M. F. Weymann, St. Joseph, Demonstration of a Bandage for Eye and Mastoid Dressings; E. A. Donelan, St. Joseph, The Importance of Medical Examiners for Schools; R. O. Cross, Kansas City, The State's Duty in the Matter of the Prevention of Pulmonary Tuberculosis; C. C. Hurst, Salisbury, Etiology of Disease, Germ or otherwise; Frank G. Nifong, St. Louis, The Active Principle of Quackery.

Disposal of Sewage.—A year ago, says the "Evening Post," the Sewage Commission of Connecticut planned the establishment of a plant for testing bacterial purification of sewage in septic tanks. The Commission was deterred, however, partly by the expense and partly by ascertaining the fact that Professor Kinnicut of the Worcester, Mass., Institute of Technology, an expert on the subject, had established a plant for the purpose. The results of a year's experiments of Professor Kinnicut are now made public in the annual report of the Commission published recently, which characterizes them as "a substantial contribution to the world's knowledge of the subject," and as showing "exactly what it is that takes place in the septic tank, that feature of sewage disposal works which has been so much discussed of late, and in regard to which so little can be said to be positively understood." The sewage treated was the ordinary city sewage of Worcester. The tests indicate that (1) about one-fourth of the solid matter is removed by the septic tank; (2) that the tank removes a large amount of iron from acid iron sewage; (3) that 25 per cent. of suspended matter was removed, which is much less than that removed from sewage, with less manufacturing waste; (4) that 21 per cent. of soluble matter was removed; (5) that temperature had nothing to do with the organic matter removed, while gas

evolved is less in winter than in summer; (6) that the amount of gas depends upon the sludge at the bottom of the tank; (7) that the sludge contains less organic matter in autumn than in the spring; (8) that the crust contains much more organic matter than the sludge, and that the crust is an incident rather than result of bacterial action.

Fourteenth International Medical Congress.—All communications from American physicians concerning the business of the Congress should be addressed to Dr. J. H. Huddleston, New York Academy of Medicine.

Obituary.—Dr. Nathaniel M. Freeman, eighty-one years old, who had practised medicine in the Yorkville district, New York City, for more than forty years, died suddenly last week of heart disease, in the Aschenbroedel Verein.

OBITUARY.

DR. MEREDITH CLYMER.

THE death of Dr. Meredith Clymer at the age of eighty-five, removes from the medical profession one of the oldest and ablest of those men who for half a century have been making New York a center of medical science. When Dr. Clymer was in the prime of life he was known as one of the distinguished physicians of the city. The leading journals published his articles, and his books were standard text-books. That his name belongs to the past in no wise signifies that he had outlived his reputation; but rather that he was more fortunate than his peers in living to the age when he could see the younger school of men profiting by the advantages and building upon the foundation which the energy and ability of their fathers had laid for them.

Dr. Clymer came of an old and patriotic family. His grandfather, George Clymer, was one of the signers of the Declaration of Independence, as a delegate of the Pennsylvania Assembly. His maternal great grandfather was Reese Meredith, a wealthy Quaker merchant of Philadelphia, who in 1778 gave General Washington \$5,000 with which to feed and clothe the patriot army at Valley Forge; and who was also one of the founders and original trustees of the Pennsylvania Hospital.

With this ancestry it is not surprising that Dr. Meredith Clymer should himself be a patriot and an ardent supporter of medical education. His student days were spent at the University of Pennsylvania where he was graduated in 1835. Two years later he took his doctor's degree, and then pursued his studies in Dublin, Paris, and London. He practised his profession in Philadelphia for ten years, during which time he was consulting physician to the Philadelphia Hospital; physician in chief to the Cholera Hospital in that city, and professor of the practice of medicine in the Hampden-Sidney College at Richmond, Va.

He came to New York in 1851 and became professor of the practice of medicine in the University of New York. During the civil war he was a surgeon in the United States Volunteers, President of the Examining Board of the Army, and in 1864-65 Medical Director of the Department of the South.

Dr. Clymer was one of the first men to specialize in neurology. In 1871 he was made professor of mental and nervous diseases in Albany Medical College, and for many years he was associate editor of the *Journal of Nervous and Mental Disease*.

His presence in many medical and scientific societies added dignity to them, and the fact that he was one of the five honorary members of the Association of American Physicians shows the esteem in which his associates held him.

It is not only the men whose names serve as land-

marks in medicine that are great. As great are they, who, though discovering no one secret of Nature, yet have mastered all previous discoveries and placed their knowledge at the service of mankind. As a type of the able professor, physician, and specialist, Dr. Meredith Clymer will be remembered by the men of middle age who in their youth called him great, and the cities whose sick he served will count him among their citizens of honor.

CORRESPONDENCE.

THE MEDICAL DEPARTMENT OF TULANE UNIVERSITY OF LOUISIANA.

To the Editor of the MEDICAL NEWS:

An article in the MEDICAL NEWS of March 15th, giving a sketch of the Medical Department of Tulane University of Louisiana, properly observed that the Medical College of Louisiana, which was the germ of Tulane University, was in large part the outcome of the enthusiasm and energy of Dr. Thomas Hunt. It was in recognition of his lifelong devotion to science and to the cause of education that he was made, when after the Civil War the institution was revived and the University organization restored with fresh zeal and vigor, president of the University. The necessary funds were obtained by him from the Legislature. He was third in the line of presidents, the first having been Francis Liston Hawks, D.D., LL.D., a native of North Carolina, a scholar and an orator of great power who in his time was the Apollos and Boanerges of the pulpit of the City of New York.

The Act of 1834 establishing the Medical College of Louisiana grew out of the devoted efforts of Dr. Hunt and was inspired by his zeal and by immediate association with him. It was he who gave to the Hon. Preston W. Farrar, the legislative author of the charter of the University, that instrument. The Act establishing the Medical College secured to it the corporate powers which made it independent and under which the College was enabled within the time of Dr. Hunt himself to reach the third place in the number of its students of the Medical Colleges of the country. The honor of founding the first chair of special pathological anatomy in the United States belongs to the Medical College of Louisiana. The College achieved not only national, but also foreign reputation. Its degree of doctor of medicine was recognized in Paris, the leading center then, if not now, of medical science, as a certificate of real merit and attainments.

It is still more important to note that the standard for graduation was probably as high as anywhere else in America—so high in fact that the degree was denied when there were two votes adverse to the candidate cast in the Faculty.

As soon as instruction in the College was resumed on the termination of the war, Dr. Hunt laid before the Faculty an elaborate plan for enlarging and liberalizing opportunities for medical instruction after the most modern methods.

The founders of colleges and universities are a country's best benefactors. The preservation of their memory is a duty which ought not to be omitted. It is part of the history of the University of Louisiana that it was sustained and advanced in the public policy of the State of Louisiana by the efforts of Dr. Hunt. He appeared in the Legislature of the State, session after session, not as a member of the body but as the well-recognized champion of liberal education. His association with the first men of the State, the disinterestedness of his character, the consideration he controlled, and his position among the public men of Louisiana,

together with his attainments as a scholar and as a brilliant orator, caused his frequent addresses to have the greatest effect in attracting public attention and in securing encouragement for the University. Thus it happened that a seat on the floor was given him in the House of Representatives, although he was not a member of the body, and it became his privilege in the department of medical science to assert for Louisiana the place of instructress of the States of the South and Southwest. The essay which he delivered on the "Utility of Science" referred to in the article in the MEDICAL NEWS, to which this is a supplement, was evolved from the more recent addresses of Dr. Hunt and presented the subject with rare felicity and elegance. It was his inaugural address as president of the University.

The present article, the aim of which is historical, may be brought to a close by presenting the monumental tribute to Dr. Hunt inscribed on the walls of the Richardson Memorial College in New Orleans, now the home of the Medical Department of Tulane University of Louisiana.

The Faculty of the Medical Department
of the University of Louisiana
have erected this tablet in memory of

THOMAS HUNT, M.D.,

A founder of the Medical College of Louisiana in September, 1834, who was born in Charleston,
South Carolina, May 18th, 1808,
and died in this City

March 20th, 1867.

He was then third president of the University of Louisiana and Professor of Physiology and Pathology in the Medical Department.

In the loss of Professor Hunt

The University of Louisiana mourns its most gifted and eloquent teacher, the professor of medicine an accomplished, elevated and independent leader and science an accomplished and untiring votary.

He brought to his instructions in physiology the resources of a cultivated and learned experience; and his demonstrations in pathological anatomy, repeated for years in the Charity Hospital,

conducted by a master imbued with profound knowledge of the subject and remarkably graceful and skilful in the use of the knife, constituted a course the most perfect ever delivered on this

Continent.

The services of Professor Hunt
as the presiding and executive officer of this Department,

his valuable donations to it,

and the large increase in the resources of the Institution obtained mainly by his energy and his influence from the Representatives of the State have entitled him to this grateful memorial.

A memoir of Dr. Hunt, compiled from authentic data appeared in the *Eclectic Magazine* in the year 1867. Wilson, the author, traced the history of Dr. Hunt, "the intrepid physician of Folly island," and told the story of his going in 1832 to the relief of the passengers and crew of the brig "Amelia" stranded on Folly Island off Charleston Harbor. The cholera had broken out on board the vessel and the sufferings of all on board enlisted the sympathy of Dr. Hunt, who went to the relief of the sufferers at the peril of his life.

It was under these circumstances that he made the acquaintance of Dr. Warren Stone, who became his

colleague in the Medical College of Louisiana and lifetime associate, a man of benevolence and genius and an extraordinary surgeon. Dr. Hunt attended Dr. Stone, generously supplied his necessities and sent him rejoicing on his way to New Orleans.

Wilson's sketch of Dr. Hunt describes him as "a fascinating lecturer" and says that the resolution of the Law Faculty of the University on the occasion of his death most fitly describes the general estimate throughout the community where he lived of the talents and virtues of Dr. Hunt. The resolution in question describes him as "one who was among the highest ornaments of science and letters in this country, a man of varied and extraordinary abilities and of extensive, profound and accurate learning, an elegant and accomplished scholar, a zealous, persistent and efficient advocate and promoter of public education, the founder of the Medical College of Louisiana, an influential adviser and aider in the establishment of the University of this State, a lecturer unsurpassed for eloquence and didactic talent, a citizen of high spirit and exemplary worth and a gentleman universally esteemed for his private virtues."

F. G. FRERET.

FOREIGN SOCIETIES.

German.

META-ANILID OF ARSENOUS ACID—SYPHILIS BACILLI—NEW BACTERIA IN THE SPUTUM—ADENIN IN AN ANIMAL ECONOMY—HYDROTHERAPY IN ISCHIAS—LIGHT AS A CURATIVE AGENT—CHANGES IN THE BLOOD DURING HYDROTHERAPEUTIC TREATMENT—ABSCESS OF THE LUNG.

The following important German societies have held meetings. SCHILD, at the Berliner medicinische Gesellschaft, March 5, 1902, stated that instead of the subcutaneous injection of arsenic, which is painful, and instead of its substitute, cacodylic acid in the same method of administration, which, while free of pain, gives an objectionable odor of garlic to the breath, he has been using the meta-anilid of arsenous acid. This preparation has no disagreeable after-effects and may be given in rather large doses. In a somewhat long list of diseases of the skin, for example, lichen ruber, xanthoma diabeticum and psoriasis, he has employed it with satisfaction and success at Lassar's clinic.

M. JOSEPH and PIORKOWSKI discussed the subject of the specific germ of syphilis. Joseph inoculated the sperma from syphilitic subjects on *Plasenten*. Under ten hours there were small colonies similar to dew-drops, which after twenty-four and forty-eight hours had much increased. These were then transferred to the ordinary culture media and always grew luxuriously. The same observer took sperma from subjects who were not syphilitic, but obtained no cultures on the *Plasenten*. Inoculation of agar with the sperma gave no bacilli. The bacillus appears to show agglutination. It certainly had a strong tendency to group itself into small balls or clumps, and, after being thinned down to one part in thirty of serum from syphilitic subjects, this grouping became more apparent. In fresh azoosperma from syphilitic subjects no bacilli were found, but in such subjects they were present in the blood. If the sperma was sterilized then nothing grew on the *Plasenten*. The observer does not claim anything fixed or definite in these experiments as to the causative relation between this bacillus and syphilis. He offers it, however, as a contribution to the subject. Piorkowski corroborated the views which his colleague in the work expressed.

LICHTENSTEIN, at the Verein für innere Medizin in Berlin read a paper concerning a new bacterium recovered from the sputum having the following characteristics: The patient was one of Von Leyden's, in whom

the question of tuberculosis was present. On account of the clinical bacteria which he presented, Von Leyden said that he did not have tuberculosis, and the characters of the bacteria, which although stained with acids did not decolorize with alcohol and did not cause disease in guinea-pigs, tended to establish the correctness of this view. The fifty-year-old, muscular patient had suffered for a year with cough, sputum, and hemoptysis. Examination showed dulness, bronchial breathing and a few râles. The physical signs remained with few alterations while the general condition of the patient improved. During the year setbacks occurred with frequent profuse bleedings. In December of last year he had his last bleeding. In spite of these frequently recurring accidents there did not seem to be any progressive loss of general strength. Elastic fibers and lung fragments were absent from the sputum. In addition to staphylococci and streptococci there were the afore-named acid staining bacteria. They are longer and thinner than the tubercle bacillus and lie for the most part in large bunches. During a ten-minute exposure to a 15-per-cent. nitrate acid dye, they were not stained, while they were quickly stained by alcoholic solutions. Guinea-pigs were not inoculated by them with tuberculosis. Just what kind of bacteria these are he could not say, because pure cultures had not yet been obtained. Von Leyden said that this case gives a good example of the importance of the practical distinction between pseudo-tuberculosis bacilli and the true. Aside from not knowing the kind of bacteria present he called the case one of fibrinous bronchitis.

NIKOLAIEV presented a paper concerning the development of adenin in the animal economy. This substance has been discovered and described by Kossel, which he found most abundant in the thymus gland. Minkowski injected it into the bodies of animals and through it found in the kidneys peculiar yellow bodies which were striated radially and seemed to be uric acid. Nikolaiev has given the same substance subcutaneously and found these same concretions in the kidneys and the bladder. On account of the numerous and repeated experiments upon white rats, he thinks that they are formed not out of uric acid, but of 6-amino-2:8-dioxypurin.

BRIEGER, at the Gesellschaft der Charité-Aerzte in Berlin, February 27, 1902, discussed the relation between hydrotherapy and ischias, noting the cures he had obtained in neuralgias, and especially in this form, ischias, by means of the newly-established hydrotherapeutic institute of the University. Cases which had persisted for a year and under treatment without result were cured by water, with movements and massage. The method employed was the alternating application of cold and hot streams in the form of the Scottish douche, and also full body baths at a temperature of 38° C., during which passive and active movements of the legs and trunk were carried out. The end result was that the pain and cramps were quieted by the hot water and the massage stimulated the parts to recovery.

KREBS read a contribution on the subject of light as a therapeutic agent, stating that chronic rheumatism and neuralgia have been successfully treated in his hands by sun or light baths. The improvement was probably due to the action of light upon the perspiration. Special reference was made to the comparative influence of white, blue and red light upon the mind of the patient, and also because of the fact that many perspired in a shorter time and at a lower temperature under them than under the other colors. The refracted rays of the blue light are an expensive and not especially advantageous refinement. The mode of action of throwing rays by means of reflected lamps depends probably upon the element of heat, as it has also the specifically famous results of refracted rays of light. These may be ob-

tained more actively and satisfactorily by means of steam and massage. The therapy of light cannot be regarded at the present time as a very definite matter.

LAQUEUR has studied the changes in the blood brought about by hydrotherapeutic treatment, taking his specimens during hot and cold applications from the lower extremities at the point of application and from the lobe of the ear. A distinct difference between hot and cold applications was neither at the point of application nor at the remote points possible to fix. The changes were for the most part slight. Rather regularly at the point of application there was a small increase in the number of leucocytes and at the remote points a decrease. It seems apparent that the efficacy of hydrotherapeutic measures does not depend upon much other than the mere stimulation of circulation.

LENHARTZ, at the Aerztlicher Verein in Hamburg, February 18, 1902, described a case of abscess of the upper lobe of the lung in a fifty-two-year-old man upon whom he had operated successfully five weeks before. The patient had been out of doors for eight days preceding his presentation at the Society and was in good condition. The abscess cavity is almost entirely healed, excepting for a fine sinus, which is now granulating up rapidly. There is no discharge, but during coughing air is expelled through it. He hopes to have this sinus closed entirely in a short time. The man presented himself with signs of an acute, fetid bronchitis proceeding from the right upper lobe and under ordinary, conservative, medical treatment at the outset ran down so much that an operation was quickly decided upon. The third rib was cut away and the abscess was discovered in the immediate neighborhood and contained a most fecal and foul-smelling mass of pus. The cavity measured approximately 4 cm. wide, 7 cm. long and extended deeply into the lung. The evacuation reached 270 c.cm., but soon decreased so that for the last two and a half weeks the patient has had hardly any sputum or discharge. The temperature, which before operation was very high, quickly returned to normal. In the medical literature of the world Garré has collected 122 cases of similar abscesses operated on. Added to these are 26 cases reported since Garré made up his statistics, making a total of 148, of whom 94 were cured and 54 died. According to the estimates of Villiere the internal treatment without operation of lung abscess gives a mortality of 75 to 80 per cent. From these records it will be seen that in this new field of surgery the first mortality is only 63.5 per cent., showing that the operative measures are certainly better than the medicinal treatment.

SOCIETY PROCEEDINGS.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, Held March 4, 1902.

The President, Joseph Collins, M.D., in the Chair.

A Case of Myotonia.—Dr. J. Ramsay Hunt presented a man, twenty-eight years old, who had come to the clinic with a history of having a peculiar stiffness of the hands and of the muscles of the jaws in the morning. On awakening it was found impossible to open the eyelids to their full extent for a minute or more. This myotonia was aggravated by cold or prolonged rest. There was a consolidation at the apex of one lung in this patient. Strong, stable galvanic applications produced no wave-like contractions such as are sometimes observed in myotonia. The hands were weak; the knee-jerks were difficult to elicit except on reinforcement. The muscles were small and showed no evidence of hypertrophy. The legs were not involved.

Lymphatic Angiomata.—Dr. Joseph Fraenkel presented a man who had symmetrical tumefactions in the pre-auricular space, over the upper part of the sternum, between the upper borders of the shoulders and also in the abdominal wall. The man gave a history of chronic alcoholism. The speaker said that according to the modern conception this disorder was a localized disease of the lymphatic glands and vessels—in other words, a lymphatic angioma. Since the admission of this patient to the Montefiore Hospital he had developed a rather acute tuberculosis. According to the literature, thyroid medication in such cases caused a diminution of the body weight, although the tumors, despite their close resemblance to lipomata, remained unchanged.

Multiple Neurofibromata.—Dr. Fraenkel presented specimens from a patient who had long been in the Montefiore Hospital. The patient was a woman who was thirty-one at the time of her death. Her family history was excellent, and she had been well up to eleven years ago. At that time she had given birth to a still-born child, and claimed that shortly afterward she had developed a tumor on the right side of the abdominal wall. Soon after this the left lower extremity became contracted. On admission to the hospital there were contractures of both lower and upper extremities, and the diagnosis was hysterical contractures. In the later stages she presented the picture of hysterical chorea. There were very irregularly-distributed atrophies and changes in the reaction of the muscles of the upper extremity and in some of the muscles of the lower extremities. There was also total paraplegia. There were no trophic disturbances. At the autopsy a number of tumors, neurofibromata, were found. One of these almost totally compressed the cord. The brachial plexus was the seat of numerous neurofibromata.

Dr. Joseph Collins said that cases of multiple neurofibromata must be extremely rare, as he had just seen his first case of the kind. This patient was a smoker who came to the clinic stating that he had suddenly begun to experience pain in the right arm and shoulder, and that pain and inability were increasing. Twelve years ago he had had a somewhat similar condition, but had recovered from it, and the history indicated that there had been several similar but slighter attacks. Examination showed that the musculospiral, the circumflex and the suprascapular nerves were the ones particularly affected. They were tender on both superficial and deep pressure. Investigation showed no less than seventy tumors in different parts of the body, varying in size from one-fourth to one-half of an inch. Two of these tumors could be felt in the inferior border of the axillary space where the external division of the brachial plexus was situated. It was, therefore, fair to infer that these tumors were similar to those found in the other parts of the body, and by an implication of that trunk had given rise to the pressure neuritis from which the patient was suffering.

Dr. Harlow Brooks said that at the January meeting of the New York Pathological Society a specimen of neurofibroma had been shown. Only the sciatic nerves were involved, and the enlargements were almost symmetrical. There was apparently a complete obliteration of the nerve fibers.

Histrionic Element of Mental Disease.—Dr. Theodore H. Kellogg presented a paper on this subject, which, he said, was not only an interesting topic but of real diagnostic importance. Shakespeare had recognized this by introducing several insane persons into his plays. The acting was involuntary in some and intentional in other insane persons. The maniacal patient was sometimes driven by vivid hallucinations to emotional acting. There was nothing more spectacular than a powerful man wrought up by hallucinations and delusions.

The most persistent and intentional forms were seen in paranoiacs. The theatrical stage afforded nothing more striking than the lunatic leading a crowd of sane persons from their sober avocations into all sorts of vagaries of religious belief. It was the rule that whatever had been attained by laborious effort was generally abandoned in mental disease, and, hence, the professional actor showed no special tendency to acting when insane. A number of cases of erotomania had come under his observation which had been characterized by most persistent acting. Jealousy was one of the most powerful passions, and when it had insane intensity it led to the most tragic performances. Mental patients were prone to mimic those around them most persistently and cleverly. In most large hospitals for the insane were to be found those acting as buffoons for the edification of themselves and others. Malingering rôles were sometimes acted for weeks and months, and sometimes the patient even burlesqued the mental disease. They sometimes dissembled their real symptoms and denied the existence of delusions in order to secure discharge from asylums. It was well understood that prolonged feigning might lead to insanity, but it was not so generally known that unless the histrionic element were repressed it would tend to interfere with the cure of the mental disease. The recognition of the histrionic element as an integral part of mental disease shed light on some obscure phases of mental pathology, and had practical bearings in the prognosis and treatment of mental maladies.

Dr. Lyon said that the author of this paper had enjoyed unusual opportunities for observing insanity in all its forms, and the instances cited were undoubtedly the exceptions rather than the rule. There were not many who act a consistent rôle for any length of time. He had known some of these patients who were trying to act the rôle of a certain personage halt for a moment when confronted with the statement that this was not the true impersonation. He agreed with the reader of the paper that it was well to discourage, without actively combating, these delusions.

Dr. Defendorf said that the paper was exceedingly interesting from a descriptive standpoint. He could not agree with the statement that the histrionic element was of great prognostic and diagnostic value. Such acting was said to be the expression of morbid impulses and that they occurred in connection with grandiose ideas in paranoia, yet in the one class the prognosis was good while in the other it was very unfavorable.

Dr. Ralph W. Parsons described a number of striking and amusing cases illustrating the histrionic element. He said that in these cases the imagination was the predominant element, and that there was often a reversion to the mental state found in children or in primitive races.

Dr. Noble of Middletown, Conn., said that the patients he had met with who had displayed the histrionic element had rarely been consistent; they would not carry out the entire character impersonated as an actor on the stage would do. Whether this was because of deficient knowledge of the character impersonated or because of a deficiency in histrionic ability he could not say. He had always looked upon this element as unfavorable, probably because it was so largely seen in paranoiacs.

Conditions for Psychiatric Research.—Dr. Adolf Meyer read this paper. He spoke of the founding of the New York Pathological Institute of New York State and of the causes which had led to the failure of this work. He said that he had hesitated long before accepting the present unenviable position and the task of reorganizing this institute and making it more generally useful. He had been told that the hospitals for the insane would not receive what they most needed if

the institute began its work with research. The scientific spirit in the hospitals should be stimulated and fostered in every way possible, and hence clinical and pathological work should be done as far as possible in these hospitals under the supervision of the institute. The central institute should offer to the hospitals advanced instruction in clinical psychiatry. The central institute should not, however, abandon original research. The safest starting-point was undoubtedly actual experience. The pathologist of the hospital for the insane had found himself hedged in by narrow routine and the hospital staff so engrossed with routine work as to have no time or inclination for original scientific investigation. The speaker then went on to point out many of the inaccuracies of symptomatology and the shortcomings of histology as applied to psychiatry. In his opinion, the staffs of the hospitals for the insane were entirely too small to do their work well. Psychiatry knew little as yet of diseases, as that term was used in connection with other parts of the body—in other words, it knew little of pathological entities. In no other field of medicine were absolutely accurate records so useful as in psychiatry, yet where were such records to be found? The effort of the present day should be to improve the records and do away with the prevalent impressionist method. Dr. Dent of the Manhattan Hospital had agreed to give the necessary clinical material for a start, and a chemical laboratory and a histological laboratory for study in clinical psychiatry would be established, and, in time, a psychological department would be added. All those in charge must be physicians especially interested in psychiatry. The assistant physicians in all the hospitals should be encouraged to do good work according to the recognized modern scientific methods. The new movement must be a natural outgrowth of the present conditions.

Dr. Lyon thought the workers in the hospitals for the insane would very generally welcome such help as had been offered in outline in this paper. He had long felt that clinical and laboratory work should be practically united.

Dr. Smith Ely Jelliffe congratulated the reader of the paper and pledged his hearty coöperation. He said that he knew the stress of work laid upon the hospital interne and sympathized with him, and for this reason he thought the suggestions contained in this paper were most judicious.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON PEDIATRICS.

Stated Meeting, Held April 10, 1902.

Roland G. Freeman, M.D., Chairman.

Specimen of Sarcoma of the Lung.—Dr. Louis S. Fischer presented a specimen showing the presence of sarcomatous growth in the pulmonary tissues of the left side. There was no syphilis or tuberculosis in the family history and no clinical signs of either of these conditions in the child. Punctures had been made on several occasions and only serous fluid was obtained. There was marked dullness over most of the left chest and the cutaneous veins were very widely engorged. This showed that a condition of considerable mediastinal pressure existed. The tumor seemed to show a certain tendency to point and when the child was examined in Hamburg the diagnosis of the presence of pus in the swelling was made, but on puncture only serous fluid was obtained. The heart was displaced over into the right axilla and the apex beat could be felt below and to the right of the right nipple. The temperature was at times considerably above normal and ranged from 100 to 101.2° F. There was cyanosis of

the fingers and very marked cyanosis of the lips. The child suffered from a severe form of anemia. The X-rays showed the heart well on the right side, but did not disclose much about the tumor. The difficulty in the use of the X-rays was that the child's restlessness did not permit of the taking of a radiograph in which the requisite definition could be secured. The patient's general condition suffered very much. For nearly a year the child had been compelled to sleep sitting up and had become so very nervous that it trembled even at the slightest touch. A marked hyperesthesia also developed and made life very miserable for the child. The patellar reflexes were considerably exaggerated as were also the plantar reflexes. The child's digestion was reasonably good, though swallowing was rather difficult and it was fed on concentrated food. The bowels were sluggish and the urine about normal, containing neither sugar nor albumin. As the child's condition constantly grew worse, an operation was performed. The child bore the anesthetic very badly and died shortly after the operation. On autopsy the tumor was found to be a sarcoma of the spindle-celled variety and in a very active stage of growth. These tumors of the spindle-cell type are quite rare in children. It seems probable that the tumor was a primary sarcoma of the lung.

Vaccination Packet.—Dr. B. Van D. Hedges presented a packet containing all the materials necessary for the performance of thoroughly aseptic vaccination. This packet, though of convenient size to carry in a pocket, contains a small bottle of liquid soap and a small bottle of alcohol. In it there are also a number of small compressed sponges, sterile needles, and a piece of gauze that can be used as a vaccination shield without any of the ordinary inconveniences that attach to the use of shields. The sponges are of the kind that are compressed by hydraulic pressure into very small compass and that swell up and become soft when placed in water. Dr. Hedges has found the usual vaccination shields worse than useless. By undue compression they cause congestion and irritation and lower the resistive vitality of the part. He places in this packet a small piece of sterile gauze which is fastened to the arm by means of adhesive plaster. This protects the parts without causing irritation or undue compression.

Dr. Huddleston thought that the packet presented by Dr. Hedges seems a very desirable combination of the things necessary for aseptic vaccination. The shield suggested by Dr. Hedges seems to him to have none of the objections that vaccination shields generally have. Dr. Huddleston suggested, however, that a sterilized piece of wood should be added to the packet in order to allow of liquid vaccine being rubbed into the vaccination wound. This is important because it insures the taking of the vaccination better than any other means and some absolutely sterile instrument is necessary.

Improved Shields.—Dr. Crandall said that this form of vaccination shield suggested by Dr. Hedges required the physician to wait too long before he could leave the case. After all a piece of gauze can not be applied directly over the wound until it has become thoroughly dry. This will usually take at least fifteen minutes. At times when vaccinations are frequent this would be entirely too time-consuming. Dr. Crandall employs pads of aseptic cotton. These can be purchased at the drug store and a hole can be cut in one of the pads and will thus form a protection for the wound, but without being applied directly to it. Over this perforated pad a second pad is fastened thus providing a cover through which infected material can not escape. This dressing does not touch the wound at any point. It can be applied immediately after the vaccination if necessary and so there is no waste of time.

Progressive Infant-Feeding.—Dr. Henry L. Cok read a paper on the application of the progressive principle to infant-feeding. He insisted especially on the fact that the development of scientific infant-feeding owed much to American investigators. From the year 1882, when Meigs taught the importance of the adjustment of food to the infant's age and the significance of mother's milk and its various constituents, much has been accomplished. Rotch's work some ten years later constituted the next great step in advance. This involved the use of the laboratory, however, in the preparation of infant-feeding. Westcott's system of percentages for the home modification of milk served to bring this question practically before the medical public. It might have been hoped that these years of study would have produced more general interest. Notwithstanding three decades of special work, however, the general practitioner really takes very little interest in this subject. If, as has been calculated, fifty per cent. of the race at the present time have to be fed artificially from the beginning and since all of the children have to be fed adaptably after the first year, this subject of adaptation of food is extremely important. Dr. Coit, however, has recently had brought to his attention some flagrant examples that show how little up-to-date the general practitioner can be in this particular. He found a child suffering from evident inanition whose family physician had advised the use of milk mixed with gelatin and arrowroot, according to a formula used about twenty years ago. The gelatin was recommended in Meigs and Pepper's text-book following a mistaken notion of Struve. Struve got an idea that as woman was omnivorous and, as gelatin was a substance that contained all the chemical elements that usually go to make up organic compounds, it should form a suitable addition to cow's milk, for the cow is after all only herbivorous. Needless to say, gelatin is not a food.

System of Modification of Milk.—Much of the lack of interest of the general practitioner in this important subject is due to the fact that the systems of modifying milk so far suggested have, as a rule, been too complicated. Simpler methods are demanded. There is no doubt, too, that the endeavor to supply milk of very exact percentage composition is founded on a fallacy. Children are not chemical reagents and ordinary milk must form the basis of infant food, which milk, itself, is not a constant quantity. Ordinary market milk is no more constant in its composition than are uniform the breeds of cows among the dairy herds from which it comes. Milk can not be assumed to be an average product. Even mother's milk conforms to no definite standard. There is but one thing in recent experimental work with milk that has become sure and that is that violent mechanical disturbance of milk as a natural product, such as is accomplished by the violent use of a centrifuge, makes it indigestible. It seems probable that some of the methods suggested for the modification of milk sacrifice too much to the chemical accuracy. There must be a flexibility of modification formulae in order to accommodate the food to advancing age. Mother's milk is thus accommodated to the age of the child. Nature's prescription is followed in this matter and it is probable that there are differences even for blond and brunette in the matter of milk formation and natural adaptation.

Milk Modification.—The greatest difficulty with regard to the modification of milk for practical use is that when first applied the modification is usually not for a well child, but for a sick one. Feeding charts, as a rule, are made, however, for well babies. Every case, however, must be individualized. Once a month at least formulae should be modified to suit the child's condition. The progressive principle of food modifica-

tion is opposed to stereotyped practice. Most patients who come for treatment are suffering from some form of starvation. The use of condensed milk, or of a patent food, has left out of the dietary of the child some important constituent that must be replaced, if the child's health is to be conserved. It is not an infrequent thing to see children of six months of age taking a milk food formula meant for a child of two months. When any special digestive function, as, for instance, that for fats, or for nitrogenous material, is impaired, it must be encouraged to increase its power by gradual additions of that form of food to the diet. Above all it must be remembered that infant dietetics is not as yet a science, but an art. There is a personal equation of judgment that must be used in the application of any set of formulae. Each child must be treated entirely from the indications furnished by itself and not according to any hard and fast rules. Dr. Coit then described his method of employing 10-per-cent. cream mixtures as the basis for modified milk formulae and the ease with which various modifications can be made in the different ingredients, so as to suit each individual case.

Child-Feeding During Second Year.—Dr. Thomas S. Southworth said that there is at the present day as much of a pitfall in underfeeding as in overfeeding for children. It is possible for children to have abundant food of unsuitable type, as well as to have too little food of the proper kind. The beginning of the second year represents a transition period from the exclusive milk diet to the mixed diet of the adult. The proverb with regard to the danger of the second summer shows how well the risks of this period are appreciated. During the second year the child develops ten teeth. This must be taken as an indication of the fact that Nature demands variety in food, for the teeth are made ready for the grinding of various forms of food.

Cereal Gruels.—Some form of cereal gruel is now commonly used for the dilution of the milk diet of children under a year old and this helps in the transition from milk to a mixed diet. The dilution with gruel or with gelatin made from some of the grains is undoubtedly an excellent introduction to a starch diet. The choice of the grain to be used in an ordinarily healthy child seems to be a matter of indifference. There are some indications, however, that help in the selection in special cases of a particular cereal. If the child have a tendency to constipation, oatmeal would seem to be the best medium. If, on the other hand, there be a tendency to diarrhea, or eczema or indigestion, oatmeal in any of its forms is likely to be unsuitable. Barley or wheat or hominy may be used and, as a rule, salt should replace sugar in the preparation of these gruels. Rice is an excellent, nutritious, and easily digestible cereal and should usually be given in the middle of the day. Cow's milk must form the basis of the food all during the second year. So much has been said about the dangers involved in the use of the nursing-bottle that many people are tempted to abandon it in the feeding of children as soon as possible. Dr. Southworth does not believe, however, that the bottle should be abandoned until the child is well above eighteen months of age. When children can only with a certain amount of difficulty take from five to six ounces of milk from a cup, they will readily take eleven to twelve ounces through a nipple. The six-ounce bottle for nursing purposes that is ordinarily employed should not be the limit of the milk the infant can take at one feeding and if necessary a twelve-ounce bottle should be procured. Dr. Southworth believes that a child should always be fed about ten o'clock at night and that this feeding should consist entirely of milk taken from the bottle. He is accustomed to direct that the child shall be changed about this hour, given its

milk and allowed to sleep. When thus fed children sleep longer in the morning and their sleep is apt to be less disturbed during the night.

Hours of Meals.—Dr. Southworth believes that children should, until their second year, be fed about five times during the day. At 7.30 A.M. they should have their breakfast which should consist of some cereal and a bottle of milk. At 11 A.M. they should have a bottle of milk and a crust of bread. Chewing on a crust is not only excellent exercise for the child's chewing muscles, but it serves to keep the teeth clean and is a stimulant to proper dental growth. At 2 P.M. the child should be given dinner, consisting of an egg and some milk as well as certain vegetables. Less milk should be given at dinner according as the other forms of food are more abundant. At 6 P.M. the child should have supper, at which time besides some bread and butter there should be some preserves, not too sweet, or prunes or baked apples without the skin and a bottle of milk. At 10 P.M. there should be a bottle of milk. The bottle should not be discontinued until after the middle of the second year.

Various Food Materials.—A soft-boiled egg may be given on alternate days, but not oftener, lest the child tire of them. Crust of bread, zwieback and the various forms of biscuits, as they are called, are good for the teeth. Broths and bread and milk are old fashioned yet excellent. Orange-juice, avoiding the use of any of the pulp of the fruit, is especially indicated for scorbutic cases and this gives a hint of its employment in other cases. Orange-juice, he believes, should not be given within an hour of the taking of milk. Prunes are a cheap and available form of fruit for children of constipated habit. The skin should be removed and the pulp passed through a sieve. Baked apples, without the skin, with cream and without too much sugar, are an excellent article of diet for children. Very well baked potatoes, especially when ripe and mealy, are readily digested. Screened spinach is a very good vegetable and other vegetables, as peas and beans, may be used on occasions.

Meat and Meat-Juice.—Meats should not be given until the child can chew very well. Meat-juice is very good for children especially if they be suffering from anemia and its employment may be begun toward the end of the first year. According to the needs of the child, from one to three ounces should be given at dinner. There are certain contraindications to its use. Children of very nervous temperament and heredity, or with inherited tendencies to gout or rheumatism, or with eczemic manifestations, should not be allowed meat-juice. Meat soups and broths must also be limited in their dietary. An excess of meat must always be avoided and the amount given must bear a definite relation to the outdoor exercise which the child has. Children must be taught, however, to eat a variety of materials. Caprices of appetite must not be encouraged. Children must not be allowed to hear that some older member of the family was just like them with regard to the refusal of some article of diet when of their age.

Children at Table.—As an absolute rule children should not be allowed to come to the family table, no matter how much parents may wish to gratify their own pride nor how great the children's desire in this respect may be. It is hard, as a rule, to insist that the mother may not "show off" her offspring at table before strangers at the end of dinner, but the permission always leads to serious abuses. The child soon finds out that there are a number of sweet things that are much more palatable than the simple food to which it is accustomed in the nursery and the beginning is made of desires for what is unsuitable. Among the better classes, special regulations must be made with regard to

the allowance of sweets for children. None of the cloying desserts must ever find their way to the nursery. With regard to the poorer classes, tea, coffee and beer must be categorically forbidden for children. This may seem unnecessary, but as a matter of fact many of the poorer people seem to consider it proper to allow their children some of these beverages when they come to the table. If milk form the basis of the diet in the second year and if properly-selected foods be added to it, there will be none of the dreaded dangers of the second summer that are so proverbially serious. It is important, however, to individualize the diet of every child. No two children of the same age, even of the same family, will take quite the same things and be benefited by them in quite the same way.

Individuality of Food-Taking.—In discussing the papers Dr. Yale said that the writers had been exceedingly judicious in their remarks with regard to children's diet and especially in the matter of recognizing the individuality of each little patient. As Dr. Northrop said it is the finding out of the "feeding that fits" that constitutes the main duty of the physician. Children during their first year are cared for much more particularly in this respect than in their second year. The older children require, however, just as much care. The result is not so immediately disastrous, but is as inevitable. It is important to inquire very early what are the child's tendencies. Goutiness, as a rule, manifests itself very early in children. The doctor asks himself whether this or that article is good for the child. The mother asks whether it will hurt the child and the impression is that anything that will not hurt must be good. The standpoints are quite different. As Dr. Southworth outlines the diet, Dr. Yale would consider his regulations more suitable for the period from twenty-one to thirty months than for the period from a year up to twenty months. Up to eighteen months, as a rule, the children do not take unmodified milk well. Dr. Yale is timid about the use of potatoes in the early part of the second year, except when the digestion is very robust. When given it should be in the form of potato soup, rather than baked potato. Dr. Yale does not like beef-juice for healthy children. Beef-juice is always a stimulant and not a hygienic food material. It has not more food value than milk. The idea that it is a stimulant should be constantly kept before the mind. If the child be wearied with play, and by experience it is known that it does not digest well under these circumstances, then a little beef-juice may be used for its stimulating effect. Beef-juice must, however, be constantly kept associated in the mind of a physician with tea and coffee, rather than with milk, as solely stimulant not especially nutrient.

Special Regulation of Meals.—Dr. L. Emmett Holt said that often enough children's refusal to take food of various kinds is due to the fact that their meals are served to them improperly. When children refuse to take certain articles of diet or want to go on to their more palatable food almost at the beginning of the meals, these should be served in courses. Not all that the child is going to eat should be put before it at once. This rule should be insisted on when the mother says that the child refuses to take this or that article of food. How often will not the child refuse its cereal when, for instance, it sees the dessert brought on. Dr. Holt does not consider that vegetables should be used much before the child is twenty-one months old. While he considers that the use of the bottle is good for some time after the first year is past, he does not encourage the use of the bottle for quite as long a time as Dr. Southworth does. Children get into the sucking habit. They will not sleep without sucking a bottle. They should be taught early to drink from a cup. For some months

after they are on a mixed diet, they may have their bottle at 10 P.M., but should be disciplined to drink otherwise during the day.

Customs of Different Countries.—Dr. Holt has had the opportunity to see some children, who, after having been under his care, were subsequently under the care of English or German physicians. English physicians were horrified at the idea that the mother should be directed to add cream to the child's milk. They consider this a heavy indigestible material. German physicians were horrified at the idea of the addition of beef-juice to the child's diet. They considered this worse than alcohol. The mother must be taught to use common sense with regard to her child and to develop firmness of will. It should be remembered that, as a rule, babies train their mothers, rather than mothers train the babies. Dr. Holt does not believe in the use of bacon, as it is too highly seasoned and therefore develops in the child a distaste for the less savory cereals. Cereals should be very well cooked. When a prepared food announces that twenty minutes of cooking are necessary, Dr. Holt recommends two hours. When the recipe says one hour, Dr. Holt insists on four. As a rule, in New York, cooks do not get up sufficiently early to cook cereals thoroughly well for the children's breakfast, therefore these should be cooked the night before.

Fruit and Orange-Juice.—Dr. Crandall said that fruit should be added to the children's diet early. Orange-juice, baked apples, and prunes are the simplest and best. As children like old stories and old toys and do not care for variety in their stories or toys, so they often do not crave much variety in their food. If their wishes be respected in this matter, the diet is sometimes inadequate.

Dr. Kerley said that he uses full milk for all babies under his care after twelve months. He does not like beef-juice as an ordinary addition to the diet. An ounce of beef-juice given daily may produce irritative conditions in the intestines and set up colitis and the like. The 10 P.M. meal should not be advised after the fifteenth month. After the fifteenth to the eighteenth month spinach and baked potatoes are added to the diet.

In closing the discussion, Dr. Coit said that potatoes as obtained in the market are often immature, hence their indigestibility. Baked potatoes are better than boiled potatoes because in boiling they are submitted to a heat of only 212° F., while the heat of the oven reaches 350° F., and this breaks up the starch globules better.

Dr. Southworth said that he recommends the use of the bottle in children during the second year only for the reason that in this way children can be easily made to take larger quantities of milk than they otherwise would. As a rule, the larger the amount of milk that enters into the dietary at this time, the better for the child.

NORTH BRANCH PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated Meeting, Held March 20, 1902.

The President, A. M. Eaton, M.D., in the Chair.

Ovarian Disease as a Factor in Pseudocyesis.—Dr. J. Thompson Schell read a paper with this title. A brief résumé of the literature on this subject was given and in all but one instance the cause of this condition was assigned to the mental state of the patient, the only contrary opinion being expressed in an article by Dr. E. N. Chapman in the "American Medical Times" of 1864, in which the possibility of irritation of the uterus and amenorrhea being the cause is suggested. Four cases which have occurred in the author's

experience were then reported, and in each of these instances there had been some history of ovarian disease. The ages of the patients varied from twenty-eight to thirty-three and all had previously borne children. All these cases during the early period of the supposed pregnancy had presented the typical symptoms thereof, such as nausea, cessation of menstruation and enlargement of the abdomen and breasts, and in every instance was the patient firmly convinced that she felt the movements of the child. In the first case the patient, after being in labor forty hours under the care of her attending physician, was removed to the hospital, and upon examination under ether was found not to be pregnant. A curettage was done resulting in the removal of some shreds of endometrium, and the patient was discharged from the hospital twelve days later, since which time she has complained of symptoms indicating pelvic involvement, but as she refuses to be examined this cannot be definitely stated. The second patient, after missing several periods, again began to menstruate and upon examination under ether a curettage was done, after which the patient made a good recovery, although she still suffers from irregular and painful menstruation, backache, leucorrhea, and pains and tenderness in the left ovarian region. The third case was a markedly neurotic patient, and, as in the preceding case, upon menstruation recommencing, she was examined under ether and curettage performed, after which she made a good recovery, although she has subsequently suffered somewhat from nervousness, nausea, and backache. The fourth case presented practically the same symptoms as did the others; as in the second and third case an examination under ether was made and a curettage done, a quantity of diseased endometrium being removed. This patient made an uninterrupted recovery. Attention was called to the fact that in none of these cases could the condition be based upon the theory of the menopause being a factor, as all were far below the age of this period. Neither did it seem that any of them were either very desirous or very averse to becoming pregnant. While the author does not attempt to overthrow the theory that pseudocyesis is the result of a mental condition, he suggests the possibility of ovarian disease being a factor in the production of the mental state.

The discussion was opened by Dr. John G. Clark, who divided cases of pseudocyesis into three classes, viz., (1) those that fear pregnancy; (2) those that expect to be pregnant, and (3) those that especially desire to be pregnant. In the first class the missing of one or two menstrual periods will often fix the delusion of pregnancy in the woman's mind, especially when the fear is superinduced by previous illicit intercourse. The second class usually occurs in the married woman who goes along in the ordinary course of events expecting to be pregnant and, of course, the missing of one or two periods firmly fixes this idea in her mind. The third class is generally observed about the age of the menopause and generally occurs in women who have previously had no children, the patient oftentimes being a typical society woman, who has in the early part of her life done everything to avoid conception and in some instances, perhaps, even terminated pregnancy artificially. The opinion was expressed that the symptoms in these cases are of a mental rather than of a physical nature, but it was also suggested that possibly this mental condition might be caused by disease of the genital organs and this possibility was strengthened by the fact that, in many cases in which insanity has occurred coexistent with ovarian disease, the removal of the latter condition cured the former.

Dr. Charles P. Noble stated that out of about 150 cases of this condition which had come under his observation, the large majority had been observed in patients who were especially desirous of being pregnant. Contrary to the opinion expressed by Dr. Clark, he believes that most of these cases occurred in women below the age of the menopause. In regard to the fear of pregnancy being a cause, he stated that, aside from those who had illicit intercourse, he did not recall having ever seen a case. Although he has seen a few cases in which ovarian disease was associated with this condition, yet he inclines to the opinion that it is caused by a mental rather than a physical disturbance.

Dr. Mordecai Price stated that in his experience most of the cases of this disease had occurred in neurasthenic women, and in many instances the patient was quite stout. While he views the mental condition as the immediate cause, he also feels that this latter condition is often produced by some disease of the genital organs. Several cases have also come under his notice in which both the attending physician and the patient were convinced of the existence of pregnancy, while the real trouble was a large fibroid or ovarian tumor.

Dr. Wilmer Krusen viewed the condition as being largely of mental origin and in most instances occurring in patients who were very desirous of having offspring, the delusion being superinduced by the missing of one or two menstrual periods, possibly due to anemia or some functional derangement.

Dr. Andrew J. Downes stated that the majority of cases which had come under his observation had occurred in women who were very desirous of being pregnant or in women who feared they might be in this condition illegitimately.

The Treatment of Puerperal Eclampsia.—Dr. William E. Parke reported a case and dwelt in considerable detail upon the etiology and treatment of this condition. This patient had been twice pregnant, the first pregnancy being terminated about the eighth month on account of convulsions, of which four occurred before the delivery of child and none followed. The patient apparently made a good recovery and repeated examinations of the urine failed to reveal the presence of albumin. During the second pregnancy her health remained good until the seventh month, at which time there was edema of the ankles; albumin was present in the urine and the quantity passed in twenty-four hours was very much lower than normal. Five days after the onset of these symptoms she complained of a pain between the shoulder-blades, for which a hot bath, rest in bed and hot packs were recommended. A pill containing calomel and podophyllin was also ordered. The attending physician had scarcely left the house after prescribing the above treatment before the onset of a convulsion, and another physician was called in the emergency who administered morphine hypodermatically. Two hours after his first visit the attending physician returned and, finding that five or six convulsions had occurred in the meantime, set about inducing forced delivery which was accomplished under anesthesia. Prior to delivery venesection had been performed, and immediately afterward 10 minims of Norwood's tincture of veratrum viride was administered hypodermatically. The pulse-rate at this time being 130, the same remedy was administered in 5-minim doses at half-hour intervals until the pulse was reduced to 60, at which time the frequency of the dose was reduced to two, three and six hours, according to indications. In addition to the above treatment, three drops of croton oil on sugar were placed on the tongue and an ounce of Epsom salts was injected into the rectum, followed later by enemata containing 30 grains of chloral and 60 grains of

bromide. The patient made a fairly rapid recovery. Great stress was laid upon the importance of closely watching the patient during the period of gestation in order (1) to prevent the formation of the toxic agents which are the cause of this condition, and (2) to eliminate them if they are already present. Dietar, and hygienic measures were advised and the importance of keeping the skin, bowels and kidneys active was emphasized. Phosphate of sodium, calomel, a pill containing aloin, belladonna and strychnine, and, if necessary Rochelle or Epsom salts, were recommended to secure free action of the bowels. For increasing the activity of the skin, hot baths and hot packs were recommended, and for stimulation of the renal function increased consumption of water, Basham's mixture, and in more urgent cases one grain each of calomel, squill and digitalis, thrice daily, were suggested. When the pulse is of high tension, nitroglycerin is of service. Suitable exercise in pure air was thought to be of considerable value in favoring elimination through respiratory channels. If, notwithstanding these preventative and curative measures, the renal insufficiency continue and toxemia increase, forced delivery is advised. For the treatment of the convulsions, venesection (withdrawing 12 to 30 ounces of blood, according to indications), inhalations of chloroform, veratrum viride, chloral and bromide and injections of salt solution, either through the veins or by the bowel, were recommended. Morphine was not thought to be indicated in these conditions, owing to the fact that it does not favor elimination.

In opening the discussion, Dr. John G. Clark stated that several theories had been advanced as to the causation of puerperal eclampsia, among them being that of Shrady who states that it is due to "brain irritation," while perhaps the most recent and undoubtedly the most scientific theory is that it is due to the retention of some poisonous product within the body. Experiments upon rabbits have developed the fact that the introduction of any drug or the application of the electric current will produce convulsions much more quickly in the pregnant than in the non-pregnant animal. The toxemic process may be produced by defective working of the kidneys, liver, skin, etc., and while it was formerly supposed that there were no pathological lesions in eclampsia, recent experiments by a German pathologist revealed the fact that in seventy-three out of seventy-five cases of this condition distinct pathological changes had occurred in the vital organs. The poisonous substance may also be produced by the fetus itself. Attention was called to the importance of eradicating the poison and prompt delivery of the fetus was recommended.

Dr. Noble laid especial stress upon the necessity for keeping a close vigil over the patient during pregnancy, with frequent urinalyses in order to determine the condition of the kidneys and the general health of the patient. Great importance was attached to the presence of either albumin or casts in the urine, and if in addition to these two factors the urine be scanty and the patient edematous, and rest in bed, hot packs and free purgation will not relieve the condition, the induction of labor was deemed advisable; in all cases delivery should be secured in cases of convulsions. As a remedy for the convulsions, blood-letting followed by the injection of salt solution into the veins was recommended in the case of vigorous patients. Chloral was thought to be good, but should be used with caution, while morphine and pilocarpin were not approved, the former owing to its contra-eliminating powers and the latter because of its increasing to an abnormal extent the secretion of all the fluids of the body. In treating these convulsions the proper course was thought

to be to relieve the convulsion and then set about the delivery of the child, rather than to direct the whole attention to either end.

Dr. Price recommended that the attention be first directed to the convulsions, stopping them if possible, before setting about the delivery of the child. For this purpose he considers venesection the most beneficial measure. Chloroform he considers of but little value, as its effect is not lasting; morphine and pilocarpin were not recommended and chloral was thought to require great caution. The importance of previous careful examination and frequent urinalyses, when opportunity permits, was fully recognized.

Dr. Krusen stated that in his opinion the urine should not be examined for albumin alone and recommended a careful urea estimation in all cases. Among the various methods of treatment mentioned were the different drugs which had been recommended by the previous speakers, hot packs, venesection and the substitution of salt solution, and the injection of the salt solution by means of the bowel. Prompt delivery was recommended in all cases.

Dr. Downes considered that the most necessary thing in the treatment of puerperal eclampsia was prompt delivery; the difference in the mortality among the cases which he has observed in private practice and in hospital work he attributes to this cause. He recommended the use of morphine or chloroform to stop the convulsions. Immediate delivery should follow. Rectal injections of salt solution and hot packs were also suggested.

MEDICAL ASSOCIATION OF THE GREATER CITY OF NEW YORK.

Stated Meeting, Held March 10, 1902.

The Vice-President, William McCollum, M.D., in the Chair.

Death of Dr. E. A. Tucker.—The Statistical Secretary having announced the death, on March 3, of Dr. Ervin A. Tucker, one of the charter members of the Association, the President, on motion, was authorized to appoint a committee to prepare a suitable minute on Dr. Tucker's death.

Indications for Operative Interference in Tuberculous Growths in the Larynx.—Dr. W. Freudenthal presented specimens of tuberculous masses removed from the larynx of a patient, twenty-six years of age, who had been in ill health for two years and who had at the present time cavities in the lungs; he made some remarks on the indications for operative interference in such cases. Of twenty-nine cases of curettage of the larynx for tuberculous infiltration previously reported by him, eighteen remained entirely unimproved, seven improved slowly, and four showed improvement almost immediately after the operation. There were two indications for this procedure, namely (1) dyspnea and (2) pain and dysphagia which cannot be otherwise relieved. In many cases the pain, which was apt to be very intense, could be efficiently relieved by simple intralaryngeal applications, and the one which he had found most satisfactory was an emulsion of menthol and orthoform. In some instances, however, it was impossible effectually to reach the parts affected, so that the alleviating medicament could not be absorbed *in loco*, and it was these cases in which curettage became necessary. The operation was a very simple one and almost as easy to perform as excision of the tonsils. In the present case two operations had been required. After he had removed some masses of the patient's larynx high fever set in and within a week infiltration came back. After the

second operation, however, there had been no recurrence of the infiltration, and four weeks had now elapsed.

Induction of Premature Labor.—The paper of the evening was read by Dr. Henry C. Coe and was on this subject. He said he had chosen a familiar theme for the purpose of emphasizing the fact that in one's anxiety to improve upon existing methods one is apt to undervalue those which have stood the test of experience. He could not accept without protest the growing tendency to extend the indications for operative midwifery so that it may keep pace with the development of modern surgery. Whatever the explanation might be, it was clear that the field of obstetric surgery had been greatly extended during the past decade, as shown by the attention bestowed upon it by all the recent text-books, and the practitioner could not be indifferent to the fact that midwifery is no longer an art, but a science as well. The care of the pregnant female includes more than the perfunctory treatment of her minor ailments and an occasional superficial examination of her urine, while no attention is paid to the size and position of the fetus until labor actually commences. Only by careful observation during the later months of pregnancy can one recognize the danger-signals, anticipate serious complications and thus guide to a fortunate conclusion a case which might otherwise terminate disastrously.

In regard to the induction of premature labor, Dr. Coe said he desired to limit the discussion to those cases in which the natural labor is anticipated by a month or less, primarily in the interests of the mother, but also with the view of saving the fetus at a time when there can be no question as to its viability. Such interference with pregnancy was not to be lightly undertaken nor was it entirely free from risk; it was an operation and was to be conducted like one. It was not his plan to discuss all the obvious indications for the procedure laid down in text-books, but to confine himself to cases in which the mother is in good health up to the latter weeks of pregnancy and the fetus is alive. Habitual death of the fetus in the last month would naturally furnish a clear indication, provided, of course, that antisyphilitic treatment had been pushed without success. The two indications regarded as of most practical importance were renal insufficiency and a disproportion between the head and the parturient canal.

If any clinical fact had been impressed upon his mind it was that uremic symptoms, like the discharges in uterine cancer, usually represent not an initial process, but a culmination. Progressive diminution in the amount of urea (with or without the appearance of casts), in spite of dietary and medicinal treatment, is a clear indication of impending danger. If one waits for evidences of general toxemia, for headache, edema, dyspnea, and the familiar train of symptoms, one may wait too long. Within the past year Dr. Coe had had six cases in which labor was successfully induced on the indication of persistent and progressive diminution of urea during the last month. While an occasional trace of albumin and a few casts appeared in two or three, the amount of urine was seldom diminished below 600 or 800 c.c.; but the evident toxemic condition was the thing which, in his opinion, justified interference. It was not to be forgotten, either, that the child was in jeopardy also, from the vitiated state of the mother's blood. In private practice particularly patients were usually averse to interference when they felt perfectly well, but he had never found insuperable the objections raised by them or their families, especially when other counsel was obtained, as should always be the case.

The other common indication, disproportion between the head and pelvis, is not so clear, and its recognition requires frequent examinations after the seventh month,

careful pelvic measurements, and attempts to estimate the relative size of the head and its adaptation to the parturient canal. This does not apply to obvious pelvic contraction, but to those minor degrees of anteroposterior flattening, marked false promontory, etc., which would possess no importance if the child were of medium size. If the fetus be plainly above the average size and if the mother be suffering from severe pressure symptoms, the propriety of interference a fortnight before term may be reasonably entertained; but in the case of primiparæ particularly the matter is often a very difficult one to decide. It presupposes a careful and conscientious study of the conditions and a clear understanding on the part of the mother that the interests of the child are to be considered as well as her own. The prognosis for the mother, so far as the risks of the operation and subsequent labor are concerned, may be an entirely favorable one; in reference to the child it should be more guarded, especially in uremic (or more properly toxemic) cases. It must be impressed on the family that the fetus is premature and that it will require special care for several weeks.

As regards technic the author said that while there was a good deal of room for improvement upon existing methods, he regretted that he had nothing new to offer. In the class of cases referred to, in which the aim was simply to anticipate, not to precipitate delivery, he assumed that the object was to imitate Nature as closely as possible by causing a softening and dilatation of the lower segment of the uterus, as well as intermittent contraction of the organ. The former was much more important than the latter, especially in view of the necessity for rapid emptying of the uterus which might arise. In premature labor violent contractions with a rigid, undilated cervix, and perhaps escape of the amniotic fluid, would naturally be a most undesirable result; and it was therefore a matter of surprise to find so high an authority as Hirst advocating the old practice of introducing a bougie into the uterus as the only method to be commended. Personally, he had abandoned this procedure, as it had proved very unsatisfactory in his hands. It was objectionable both on account of the danger of premature rupture of the membranes and because of the uncertainty of its action.

In his own practice he had found the best method to be the use of the gauze tamponade. Instead, however, of employing five or six feet of gauze, as was commonly taught, he rarely inserted less than five or six yards; his aim being thoroughly to distend the lower segment. The points which he emphasized in the operation were, rigid asepsis, a good light, sufficient assistance and control of the patient. An anesthetic might or might not be necessary; if so, nitrous oxide or chloroform, in skilled hands, was employed. A careful preliminary examination was advisable. That it was important to locate the placenta and also to push the gauze along the posterior uterine wall was illustrated by a case of accidental hemorrhage recently reported by him, in which a low-placed placenta on the anterior wall was partly detached after labor began, probably by pressure of the gauze tampon. In order to avoid rupturing the membranes the gauze must not be pushed in with too great force. Not much progress is to be expected for twenty-four hours, and the patient is allowed to be up and about. Quinine is pushed to the extent of ten grains every six hours with $\frac{1}{16}$ grain of strychnine. (It is Dr. Coe's routine practice to give strychnine during the last three months of pregnancy.) If pains are slight and irregular the gauze may be left thirty-six hours, but it is usually removed earlier, a good-sized Barnes bag being substituted for it, if necessary. Since he has been using quinine he has not once had occasion to introduce

a bag, the labor progressing favorably without this assistance.

Should the condition of the mother or the interests of the fetus render it unwise to prolong the period of waiting, the opportunity for manual dilatation is now most favorable, owing to the softening of the tissues from the continuous pressure of the tampon. Under anesthesia the cervix may be dilated by the Edgar method and labor may then be allowed to proceed, or, if more rapid delivery be deemed advisable, version may be performed after thorough dilatation and paralyzation of the sphincter muscle. Dr. Coe said he had been tempted to try the mild faradic current to assist the action of the tamponade, but had hesitated to do so on account of the suggested objection (for which he could see no good reason) that the fetus might be imperiled. Having referred to some of the reasons why the artificial induction of labor was not resorted to more frequently by the profession, he said that the real reason why elective obstetrics is still in its infancy is that the physician does not yet fully appreciate the fact that his responsibility to the pregnant female begins long before parturition. This, indeed, is the essential difference between the rôle of the scientific physician and that of the midwife.

Danger to the Fetus from Asphyxia.—Dr. J. Clifton Edgar said the principal danger to the mother was from sepsis, and asepsis was therefore necessary in operating. One danger to the fetus not referred to in the paper was asphyxia. Any foreign substance introduced into the uterus must interfere to a greater or less extent with the placental circulation, and consequently, in artificially-induced labor, the child suffered from greater danger than in normal labor. He himself used the bougie, but in combination with other measures. It had been his experience, without exception, that in a few hours labor would supervene, and even in sluggish cases it would terminate without other interference. Accidents, indeed, had occasionally happened, as, for instance, the separation of the placenta with resulting hemorrhage; but they were so infrequent as hardly to be taken into consideration. His method consisted of three parts, (1) the introduction of one or two bougies (usually two); (2) packing the lower segment of the uterus with gauze; (3) saturating the gauze with sterile glycerin (but limiting the amount of glycerin used). He was in accord with Dr. Coe as to the good effects of both quinine and strychnine. The strychnine was useful as a preparation for labor, and he was accustomed to give injections of one-tenth of a grain in the second stage, as well as in the first.

Antiquated Methods.—Dr. E. H. Grandin designated as antiquated the use of both the bougie and glycerin. They were, he said, altogether too slow, as well as very uncertain in producing the desired result. Other objections to the bougie were that it was with difficulty rendered aseptic and that it was liable to cause separation of the placenta or rupture of the membranes, while glycerin was objectionable on account of its liability to give rise to nephritis. Both galvanism and faradism were absolutely useless.

The Best Method.—The best method was the insertion of gauze for the purpose of softening the lower uterine segment and thus bringing on labor in a natural manner. He always made use of this under anesthesia, always by sight and not by touch, and always with strict regard to asepsis. The gauze packing was followed by manual dilatation if the case were urgent; otherwise, contractions having been evoked, the progress of the case was left to Nature.

Toxemia of Pregnancy.—He was free to confess that at the present time he was in a very undecided position as to the advisability of always inducing prema-

ture labor in cases in which there is a progressive diminution of urea. Formerly he had had no doubts in regard to the matter, but of late he had had two cases in which this fall of urea occurred, notwithstanding a strict milk diet and other appropriate treatment; yet both patients had been delivered at term without eclampsia or other complication. Quinine was of no value if uterine contractions were not present, but was of service when they were. Strychnine was useful in the last months of pregnancy as a tonic.

Bougie Successfully Used.—Dr. Charles Jewett said he generally used two bougies, No. 12, English scale, and provided with the stillette. No anesthetic was given. A Sims speculum was introduced before commencing the procedure, and force was carefully avoided in pushing up the bougies. Afterward the stillette was withdrawn. He never practically had a rupture of the membranes. Labor might certainly be expected to come on in twenty-four hours, and in most of his cases it was actually completed within this time. This method had proved very satisfactory in his hands, while tamponing the cervix had not done so. The glycerin tampon, as employed in combination with bougies by Dr. Edgar, he thought might be an advantage. Manual dilatation was undoubtedly called for in cases of great emergency; but when a choice of methods was permissible he thought it ought not to be used.

Manual Dilatation on Account of Special Conditions.—Dr. J. M. Mabbott said that in a recent case he had had to resort to manual dilatation on account of the presence of marked endocervicitis with a profuse leucorrhea, so that the urine was loaded with pus. He practised rapid manual dilatation under an anesthetic, as under the circumstances he did not feel justified in employing other methods. The dilatation was completed in thirty-nine minutes. He had expected to use forceps, but as there was a prolapse of the cord (which ceased beating before the rupture of the membranes) he did version, and the delivery was finished in an hour.

Advantages of De Ribes' Dilator.—Dr. J. I. Edgerton said that the Barnes bag could not be depended on, but with De Ribes' bag dilatation the size of the dilator could be obtained. He had used this appliance in fourteen cases and in all of them labor was brought on within six hours. He decidedly preferred it to the catheter, which very often ruptured the membranes. Besides, the latter could not be depended on, as labor might not be started up in forty-eight hours. The De Ribes bag could be boiled and thus rendered aseptic.

HARVARD MEDICAL SOCIETY OF NEW YORK CITY.

Stated Meeting, Held March 22, 1902.

The President, William B. Coley, M.D., in the Chair.

The paper of the evening was by Dr. John M. T. Finney of Baltimore, Associate Professor of Surgery at Johns Hopkins University. Its subject was "A New Method of Pyloroplasty with Report of Cases."

Pyloric Operations.—As a rule in recent years the operations upon the pylorus for cases of benign stricture are associated with the names of Heinecke and Mikulicz whose admirable technic and method of operating was a distinct advance over all previous work done in this department of surgery. When the first suggestion as to the necessity and advisability of operations upon benign stricture of the pylorus were made, digital or instrumental stretching of the contracted pyloric orifice was suggested. This proved, however, to be attended by too much risk and other operations had to be devised. Pyloroejunostomy was tried, but

did not find much favor. Dr. Finney performed the operation upon one patient, an elderly woman, and, while her symptoms were greatly improved, the condition was not permanently relieved and many symptoms of discomfort and of inhibition of stomach function remained.

Gastroduodenostomy.—Nicoladoni in 1881 suggested the performance of gastroduodenostomy for these cases. Unfortunately, however, the emptying of the biliary duct into the duodenum above the connection with the stomach leads to the back flow of biliary secretion into the stomach. This sadly interferes with stomachic digestion and proves a constant source of annoyance to the patient because of the discomfort associated with the almost constant presence of bile in the stomach. Not in every case but in most cases, the *circulus vitiosus* of biliary reflux was formed. Hence the apparent necessity forced upon surgeons of providing some other means of correcting the pyloric stricture. Richardson suggested the use of a diamond-shaped excision with removal of portions of the duodenum and the suturing of the edges of the defect in such a way as to increase the caliber of the pyloric orifice. Jaboulay suggested submucous excision in order to avoid the dangers of sepsis because of the possibility of the stomach contents soiling the peritoneum.

Dr. Finney's Operation.—Other methods having proved unsatisfactory for many reasons, Dr. Finney was tempted to devise a new operation. The first and most important step in this operation is the freeing of the pylorus from all adhesions. Not infrequently in these cases there are extensive inflammatory processes extending around the pylorus that fasten it down rather firmly. Sometimes, as the result of these, the cases look almost hopeless. With patience, however, the pylorus can be freed and this must be accomplished if the operation is to be a success. After the adhesions are broken up, Dr. Finney inserts three sutures to be used as retractors; one is placed in the upper part of the pylorus, one in the lower part of the pylorus, and another in the lower edge of the stomach at the point where the new pylorus is to be made. Two sets of sutures are then inserted at the point where the new pylorus is to be situated. A considerable portion of the pylorus in its lower part can then be excised and turned upon the stomach-wall and fastened there by means of sutures in such a way as to leave a large opening from the stomach into the intestine. Before the cut edges are brought together all the redundant portions of the mucous membrane should be removed, in order to avoid the reoccurrence of a valve-like ridge that might interfere with the passage of food from the stomach.

Advantages of this Operation.—In pyloroplasty one of the dangers is that the pyloric opening may be so large that, when contraction takes place after the operation, the new orifice may prove more patulous than the one for which operation was done. Another difficulty is that there is always dilatation of the stomach when pyloric stricture has existed for a considerable time. The new pyloric orifice must be so situated as to drain the stomach rather readily. This facility of drainage is one of the features of gastro-duodenostomy that often gives patients such marked relief after that operation. After Dr. Finney's pyloroplasty there is no possibility of regurgitation of bile into the stomach unless in the manner in which it occurs in the normal individual. The evacuation of the stomach follows its usual physiological course and Dr. Finney's experience would seem to show that after a time in these cases the pyloric muscle recovers its tone and acts practically as the normal sphincter did.

Preparation of Patients.—The greatest care must be exercised in securing as far as possible perfect asepsis

of the site of the operation. As a rule, patients who come to be operated upon for benign stricture of the pylorus are in poor general health. They have suffered greatly from inanition and so can not be expected to undergo a long preparatory course of treatment in the hospital. At Johns Hopkins Hospital the patients' mouths are cleaned very carefully a number of times a day for several days. At the same time they are given only sterile liquid food and water and no food at all for some twelve hours after the operation. Despite the apparently insuperable difficulties involved in the attempt to secure asepsis in one of Dr. Finney's cases, the stomach proved to be sterile before operation.

Post-Operative Course.—For thirty-six hours after the operation nothing is given by the mouth. Then a few teaspoonfuls of water are allowed; if this be well borne further small drafts of water are allowed and on the second day some albumen water and then some milk. The patient is not required to remain always on the back, but is encouraged to turn over whenever the sense of fatigue suggests and even to sit up in bed if they find it not an effort to do so.

Illustrative Cases.—In Dr. Finney's first case the patient had suffered from frequent vomiting and from abdominal distention and distress. All ordinary treatment for dyspepsia proved absolutely unavailing and the patient lost from fifteen to twenty pounds in weight. The heart and lungs were normal, but the outlines of the stomach showed considerable distension of that organ and succussion sounds were pronounced. An exploratory incision was made and some induration of the pylorus was found. The pyloric end of the stomach was bound down by adhesions and these were relieved as far as possible. The stricture seemed to be due to the contractile scar of an old ulcer. Many of the symptoms, however, seemed to be attributable to the adhesions and it was hoped that the relief of these would give the patient comfort. Little benefit resulted, however, from this breaking up of adhesions. Some months later the patient was operated on once more and the pylorus was found much contracted and more firmly bound down by adhesions than before. Pyloroplasty according to Dr. Finney's method was done and since then the patient has had no return of the old symptoms, has gained over twenty pounds in weight, does not suffer from abdominal distress or distension of the stomach and there seems every reason to think that the condition has been permanently relieved.

In a second patient there had been vomiting off and on for nearly two years. This had been followed by pronounced emaciation and severe anemia. There was considerable tenderness over the pylorus. At the operation a rather close stricture of the pylorus was found. After the performance of the operation the course of the case was without incident. The patient has now regained her old weight and eats anything and everything that she wishes and suffers from no discomfort. In a third case the patient had been compelled to live on soups and crackers for over two years. Dr. Halsted did an exploratory laparotomy and, as the stricture of the pylorus seemed benign, he made an opening into the stomach and performed a Loretta operation, dilating the pylorus with his finger. When Dr. Finney came to operate many adhesions were found and the operation was not only difficult, but serious, because of the extensive hemorrhage. Since the pyloroplasty done by Dr. Finney the patient has gained forty pounds in weight.

In a fourth case, operated on a few days ago, the patient, a bar keeper, forty-eight years of age, had a history of having been a hard drinker. Eighteen years ago he had a hemorrhage from his stomach. Recently he had had severe pains, and had found it difficult to

retain anything in his stomach. Sometimes the vomited material contained substances that were swallowed several days before. The man was in very poor general condition, and had beginning tuberculosis at the apices of both lungs. He would not have submitted to operation but for the fact that he had been using an old stomach-tube for the purpose of washing out his stomach and a portion of it had broken off and remained in his stomach. After this accident he felt better. The pylorus was found thickened and greatly indurated. It was infiltrated with dense scar tissue and all of this was excised. After the operation four fingers could be passed through the pylorus. So far this patient is doing very well and promises to emulate the others in rapid improvement.

Reinstatement of Pyloroplasty.—Dr. Charles L. Gibson, in discussing Dr. Finney's paper, said that personally he had rejected the idea of pyloroplasty for such cases and that, knowing the complications apt to follow gastroduodenostomy, he would have been at a loss how to operate. To his mind, however, Dr. Finney's operation reinstates pyloroplasty as a beneficial procedure for these extremely bothersome cases.

Dr. Walker said that undoubtedly the method outlined by Dr. Finney was simpler and more efficacious than any of the methods previously suggested. It was especially hopeful because it seemed to furnish good ground for the idea that the patulousness of the pylorus would be maintained permanently after the performance of this operation.

Advantage of Large Opening.—Dr. Dowd said that the best feature of Dr. Finney's operation to his mind was the large opening that it provided in the new pyloric orifice. Dr. Finney's whole technic was excellent and most thoroughly worked out. Dr. Dowd saw a case about eighteen months ago in which the usual form of pyloroplasty was done, but after a year the pylorus was so firmly bound down by adhesions, the adhesions extending well around the stomach, that gastric peristalsis was interfered with and discomfort experienced because of the consequent dyspepsia. In order to relieve the case gastroenterostomy was done on the posterior wall of the stomach. Undoubtedly the use of Finney's operation in this case would have been a more suitable procedure.

Dr. Lilienthal said that Dr. Finney's operation seemed to do away with most of the dangers of pyloroplasty. In his own experience the speaker has never seen a case in which the tissues seemed pliable enough for the Heincke method of performing pyloroplasty. For the thickened indurated tissues Dr. Finney's operation seems especially suitable. Dr. Lilienthal is particularly surprised that a cavity like the stomach can be practically disinfected or even rendered absolutely sterile in so simple a way as that suggested by Dr. Finney. Especially is this surprising when it is considered that in these cases of stricture of the pylorus the stomach is usually very much distended and the cavity is apt to be full of all sorts of fermenting material and to be an especially favorable culture chamber for micro-organisms of many kinds. The question of rendering the digestive tract aseptic by means of mouth-washes and the use of sterile foods seems one of the most interesting raised by the paper of the evening.

Sterilization of Stomach.—Dr. Coley said that the results obtained by certain foreign investigators show that it is going to be possible by careful attention to the cleanliness of the mouth and the use of sterilized food to sterilize completely the interior of the stomach.

Dr. Finney said that of course no conclusions can be drawn from the small number of cases treated in this way at Johns Hopkins, but the bacteriological examinations have been most carefully made and there

seems to be no doubt that a practically sterile field for operation can be obtained by due care of the mouth and by use of perfectly sterile liquid food. It has long been known that the mouth is one of the main sources of the micro-organisms that find their way into the digestive tract and especially of the micro-organisms that disturb the stomach.

Removal of Adhesions.—Dr. Finney said that the most important part of this operation that he suggests for stricture of the pylorus consists in freeing this portion of the gastro-intestinal tract from adhesions that may bind it down. As a rule, these cases have run a rather long course and the prolonged inflammatory reaction usually causes the development of extensive and extremely firm adhesions. In three of Dr. Finney's four cases the first examination of the site of operation after the abdomen was opened seemed to give a very hopeless outlook for the success of any operative procedure. It seemed almost impossible to dig out the firmly bound down viscera that were to be operated upon. These adhesions must be freed, however, and patient efforts must be made until the pylorus can be lifted up. For the technic of the operation the three suture retractors suggested are extremely important.

In doing the stitching Dr. Finney has used a needle-holder containing a bobbin of suture material in the handle. This is an extremely simple invention devised by a member of the house staff at Johns Hopkins and it facilitates the use of suture material so much that the only surprise is that such a device should not have been thought of before. The instrument enables the surgeon to place continuous sutures without any of the difficulties involved in the tangling of long sutures that is so common an annoyance.

Case History.—Dr. Finney exhibited a typical example of case history as taken in the wards at Johns Hopkins. This was the history of one of the cases described during the evening and was chosen absolutely without any idea of presenting a specially good example of history-taking. It was the admiration of all those present at the meeting and Dr. Finney was asked how they were able to secure such personal interest in the work on the part of the resident physicians. The resident surgeon at the hospital holds his position by permanent appointment. He is usually selected from the house staff and has proved his ability during residence in the house. Every week there is a meeting of the staff at which the visiting surgeons are present and the histories of the various patients are submitted for criticism and approval. So far this criticism has proved extremely helpful. It is done with sincerity and with openness and yet without giving offence. Every possible item of information with regard to the patient is carefully gleaned. Every secretion is examined and every opportunity provided for obtaining complete details as to the patient's physical condition.

Primary Carcinoma of Umbilicus.—Dr. Reynold W. Wilcox presented a specimen of a primary carcinoma of the umbilicus that had recently been removed from a patient under his care. The patient was a man of seventy-two who came about a month ago to be treated for acute bronchitis. After he had been seen several times and his bronchitis was improving the patient complained incidentally of the fact that there was something in his abdomen which made it difficult for him to stoop to button his shoes. An examination disclosed the presence of a hard tumor situated in the umbilical region. The tumor was of limited area and was evidently a scirrhous cancer of the umbilicus. As soon as the bronchitis was better Dr. Wilcox suggested that an operation be performed. As the tumor was of slow growth it did not seem inadvisable to wait for the short time until all coughing should be over, so as to avoid

any possible strain upon the edges of the abdominal incision after the removal of the tumor. The umbilicus would seem to be in theory a typical place for the development of primary carcinomata. A series of epithelial elements come to the surface at this point and a stage of early involution causes the obliteration of active cells early in life. It is at such points that cancer is looked for. As a rule, carcinomata in this region develop from the remains of the urachus. Primary carcinomata are, however, very rare here and this is one of the few that have been found in New York.

Dr. Gibson asked if there were any history of the patient's having had a patulous urachus in early life. Not infrequently the irritation of something like this seems to be the cause of the development of the neoplastic process later on. He asked also if there had been any history of irritation in this region. Dr. Wilcox said in reply that there had been no history of either patulous urachus or of chronic irritation in this region from any other cause. The patient's attention had been indirectly called to the existence of the tumor by the difficulty and tenderness experienced when he stooped.

Intestinal Obstruction and Navel Carcinoma.—Dr. Howard Lilienthal said that a patient was admitted to his ward last year suffering from all the symptoms of acute intestinal obstruction. Examination showed the presence of a lump at the umbilicus, but this was not thought to be connected with the intra-abdominal symptoms. After the opening of the abdomen it was found that a loop of intestine deeply infiltrated with cancer cells was adherent to the tumor at the umbilicus which proved to be a carcinoma. The portion of intestine was removed and also the infiltrated area around the umbilicus itself. Microscopic examination seemed to show beyond all doubt that the tumor was a primary carcinoma of the umbilicus which had spread by continuity to the adherent loop of intestine. The patient died some weeks later as the result of carcinomatous metastases. While cases of primary carcinoma of the umbilicus are rare, it is evident that they must be looked for occasionally and they should of course be treated by radical operation as early as possible. So far in most of the reported cases operation, for one reason or another, has been delayed too long and the result has been a large mortality in such cases.

BOOK REVIEWS.

PRACTICAL SURGERY FOR THE GENERAL PRACTITIONER.

By NICHOLAS SENN, M.D., Ph.D., LL.D., Professor of Surgery, Rush Medical College; Attending Surgeon to the Presbyterian Hospital; Surgeon in Chief to St. Joseph's Hospital; etc. W. B. Saunders & Co., Philadelphia and London.

In the preface to this book the author announces that it is written mainly for the guidance of the general practitioner and is intended to simplify and lighten his work in meeting the many emergencies that make part of his daily routine. While not urging the average physician to undertake difficult or hazardous operations with merely a theoretical equipment, he recognizes that conditions often require bold action on the part of a comparatively untrained operator and offers many practical hints for use in such emergencies. But the book covers a much wider range than such a plan would indicate and under many headings, such as that on intestinal obstruction, for example, comprises an almost monographic fund of up-to-date information. The subject matter is everywhere so instructive and is presented in such an attractive manner that a few peculiarities in arrangement and some unevenness in the practicality of the various sections are readily condoned. For instance,

the interpolation of a chapter of seven pages on "Anatomy of the Urethra" between the massive sections on "Gunshot Wounds" and "Fractures" and of eight pages on "Aseptic Catheterization" sandwiched in between the drainage of suppurating joints and intubation seems hardly logical, while the many detailed descriptions of experimental operations on animals, though of undoubted interest to specialists, will probably be irreverently skipped by all but the most conscientious of general practitioners.

After a short introductory homily in which the author invades the realm of the moralist and expatiates on the beauties of punctuality, military spirit, courage and good personal habits in the military surgeon, he treads on more technical ground and broaches his subject in a most admirable essay on shock, with its etiology, symptoms and treatment. Salt solution by enema and intravenous infusion, and hypodermic injections of camphorated oil are advocated as more reliable cardiac stimulants than strychnine, the value of which is doubtful in this condition. The discussion of chloroform anesthesia is very complete, though the subject of etherization is dismissed in two pages. The author disapproves of the various systems of impermeable cones and to-and-fro breathing that are coming into use in the administration of the latter agent and we find no mention of nitrous oxide as a means of rendering the earlier stages of the narcosis less disagreeable to the patient. Under hematoses the author describes a new method of bloodless amputation at the hip which employs two elastic constrictors and dispenses with the use of transfexion pins. The chapters on the treatment of wounds, wound infection and antiseptics are excellent and in the latter a method of sterilizing catgut by boiling and by the use of formalin without impairing its strength is given. Rubber gloves in operating are described as furnishing a soothing poultice for the conscience of the surgeon who fails properly to prepare his hands and turpentine is considered superior to alcohol in sterilizing the skin. The general treatment of the subject of fractures is unusually comprehensive, especially in the sections devoted to such complications as delayed union and fat embolism, which is said to be "one of the least dangerous, but most frequent complications of fractures." The only special fractures described, however, are fracture of the neck of the femur, Colles' fracture and fractures of the skull.

The surgeon will probably turn with greatest interest to the portion of the book (over 350 pages) devoted to abdominal and intestinal surgery, which the author's high reputation in this field makes of exceptional interest and value. The use of rectal insufflations of hydrogen gas as a diagnostic resource in perforations, for the detection of the site of obstructions, etc., and as a therapeutic measure in the reduction of intussusception is fully described and their value shown by citations of operative cases. The author's decalcified bone approximation plates have been found more satisfactory in routine work than the Murphy button and their preparation and the technic of employment are clearly indicated. Laplace's forceps for accomplishing the same end are pictured and commended, but the rather complicated method of their use is not given. Other subjects that are emphasized are the value of gastric lavage in intestinal obstruction and allied states, the advantage of transverse rather than longitudinal incision in enterotomy and the very important matter of the prophylaxis of intestinal obstruction after laparotomies. In the technic of herniotomy a curved incision is described which possesses several advantages over the conventional linear one.

This but very imperfectly sketches some of the more prominent features of this most fascinating book which

cannot but interest anyone even remotely connected with surgical work. Every page bears the imprint of a strong personality, ready to launch out in hitherto unthought of directions and teeming with originality, so that even when taking issue with the author the reader is stimulated to new ideas and finds profitable food for thought.

ETUDES ANATOMIQUES SUR LES GROSSESSES TUBAIRES (Anatomical Studies on Tubal Pregnancy). By A. COUVELAIRE, Ancien Interne des Hôpitaux, Chef de Clinique Obstétricale à la Faculté de Médecine de Paris. Paris, G. Steinheil, 1901.

This is an extensive study of sections of fourteen tubes containing living ova. The varieties of tubal pregnancy are considered to be interstitial, isthmic, and ampullary, the last the most common. The first chapter is devoted to this classification based on topography; the second to the modifications of the gravid tube; the third to the topographical anatomy of the ovum in the tubal sac; the fourth to a histological study of the grafting of the ovum on the wall of the tube; the fifth to the free pole of the ovum, and the relations of the ovum to the mucous membrane of the tube; the sixth considers some anatomical points and the mechanism of rupture early in the course of tubal pregnancies. There are 21 plates, including 49 figures, illustrating both the gross and the histological anatomy. This monograph is certainly a valuable addition to the extensive literature on the subject.

THE NEW YORK UNIVERSITY BI-WEEKLY BULLETIN. General University Catalogue. Published Twice a Month, except from August to December, by the New York University, Washington Square, New York.

ASIDE from the general interest which is naturally awakened by the growth in our midst of a great center of learning, there is a very special type of information in these catalogues which is hardly to be found elsewhere. The interest awakened hinges very naturally on the fact that there is a departure from the ordinary. On page 299 the catalogue treats of the work done and of the courses presented by the Woman's Legal Education Society, which for the last ten years has supported the chair for the Woman's Law Class of the University. A very able and prominent Board of Directors govern the proceedings of this department, Mrs. John P. Munn, Mrs. Clarence D. Ashley and Miss Helen M. Gould being prominent among them. Inasmuch as physicians come into such close contact with the physical welfare of women, and since there cannot be a practitioner of any worth who has not seen case after case of women physically wrecked because of lost fortunes and consequent lost social status—all lost because of woman's ignorance of legal matters—physicians as a class will realize perhaps more keenly than others the great work which is being done in this line by the New York University.

The other strictly individual announcement in this catalogue is that of the School of Commerce, Accounts and Finance. It was established in October, 1900, for the purpose of training men for the higher duties of commercial life. After two years of satisfactory work it gives the degree of Bachelor of Commercial Science. There is little doubt that a great many conservative business-men will cry down any such preparation, but it was called into being by a progressive element. The days when business men will begin their career as office boy, to rise step by step, are just as surely passed as those when medical education consisted chiefly in the student gleaning a very little information and doing a great deal of very useless work in the office of an old practitioner. Just as surely as we have happily outgrown the "preceptor" stage and have in its poor place

a laboratory and clinical training and just in the degree that this is better than the old method, so is the new School of Finance better and more modern than the archaic business education which began as office boy. The University is particularly to be congratulated on these two very progressive departments.

ANNUAL REPORT NEW YORK STATE REFORMATORY AT ELMIRA. 1901. Twenty-Sixth Year-Book. Illustrated. Summary Press. 1901.

THE topic of major interest to physicians in this report is the Biographical Compendium prepared from information concerning 10,538 inmates committed since 1876. The following points relate to the parents of inmates. Ten and one-half per cent. had epilepsy; in about 40 per cent. drunkenness was clearly traced. The figures touching on ancestral education are significant. Thirteen per cent. were absolutely bereft; 29 per cent. could read and write; 52 per cent. had an ordinary common school education. Only 4.80 per cent. of these ten thousand young men had parents whose education had progressed beyond the high school. It is a natural sequel of this, and a factor which should make those who withhold their cordial support from the education of the masses, that but 2 per cent. of the inmates had for parents professional men. Furthermore, it is noteworthy as well as somewhat amusing to note that of this 2 per cent, theological parents furnished the minimum; the minister's son, it appears, is a much abused scapegoat.

Regarding the inmates themselves, half of them had a home environment which was positively bad. Contrary to the usual supposition, one-half of the young offenders lived at home during the perpetration of the crime for which they were convicted. So far as their education goes, there is a very pointed relation between this factor in the individual and his parent. Practically the same small percentage (4 per cent.) of the inmates had a high school or higher education.

Altogether, this little volume contains much that is of value and should be read by those high State officials who contemplate making dire changes in our public institutions.

BOOKS RECEIVED.

The MEDICAL NEWS acknowledges the receipt of the following new publications. Reviews of those possessing special interest for the readers of the MEDICAL NEWS will shortly appear.

PSYCHIC RESEARCH AND GOSPEL MIRACLES. By Rev. EDW. M. DUFF and T. G. ALLEN, M.D. 8vo, 396 pages. Thomas Whittaker, New York.

TRANSACTIONS OF THE NATIONAL ASSOCIATION FOR THE STUDY OF EPILEPSY AND THE CARE AND TREATMENT OF EPILEPTICS. First Annual Meeting, 1901. Edited by WILLIAM PRYOR LETCHWORTH, LL.D.

SIXTEENTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF THE COMMONWEALTH OF PENNSYLVANIA FOR THE YEAR 1900.

THE PERITONEUM. By BYRON ROBINSON, B.S., M.D. Second Edition. 8vo, 404 pages. Illustrated. Chicago Medical Book Co.

MORPHINISM AND NARCOMANIAS FROM OTHER DRUGS. By Dr. T. D. CROTHERS. 12mo, 347 pages. W. B. Saunders & Company, Philadelphia and London.

PROGRESSIVE MEDICINE. Edited by Dr. H. A. HARE. Assisted by Dr. H. M. LANDIS. March, 1902. 8vo, 456 pages. Lea Brothers & Co., New York and Philadelphia.

THE INTERNATIONAL MEDICAL ANNUAL. 1902. E. B. Treat and Co., New York.